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DEPOT MAINTENANCE PLANNING AND PROGRAMMING SYSTEM (DMPPS): VOLU--ETC(U)
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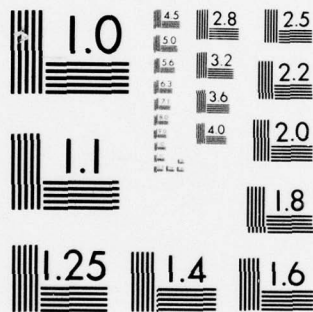
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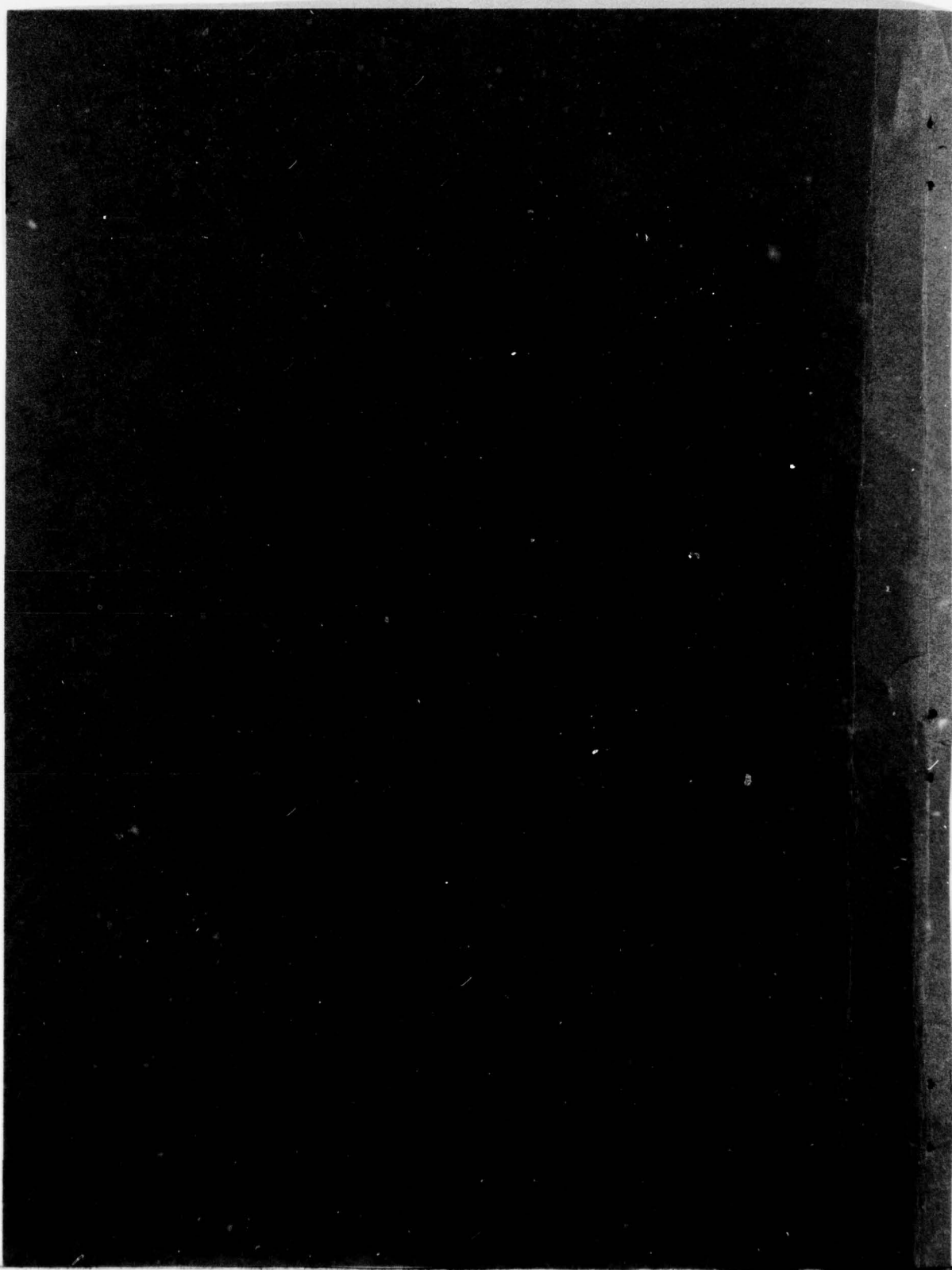




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well as material costs) by shipyard production shop and by ship work break-down structure (SWBS). It enables management to assess the impact on the shipyards and ship systems of:

- Changes in depot-level maintenance/alterations policy;
- Major changes in force levels and/or composition; and
- Budgetary constraints.

DMPPS consists of a network of interdependent computer programs written in FORTRAN IV. It was developed at DTNSRDC using the CDC 6000 series computers and was subsequently converted for the IBM 360/370 series computers. It is now installed and operational at the NAVSEA 070 computer terminal (which accesses an IBM 370/168 computer). This document presents the IBM 360/370 version of the DMPPS program modules. The modules have been grouped into six subsystems. Each of Volumes 2-7 of this document describes, in detail, one of these subsystems. An executive summary of the entire DMPPS is presented in Volume 1. The content of the seven volumes is indicated as follows:

- Volume 1 - Executive Summary
- Volume 2 - Preprocessor Subsystem
- Volume 3 - Alterations Subsystem
- Volume 4 - Repair Subsystem
- Volume 5 - Synthesizer Subsystem
- Volume 6 - Report Generator Subsystem
- Volume 7 - Feedback Subsystem

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ABSTRACT

The Depot Maintenance Planning and Programming System (DMPPS) is a large computer system developed over a period of two and a half years by the David W. Taylor Naval Ship Research and Development Center (DTNSRDC), Code 186 for the Naval Sea Systems Command (NAVSEA), Code 070T. The System was developed to project shipyard resource requirements (i.e., labor mandays and costs as well as material costs) by shipyard production shop and by ship work breakdown structure (SWBS). It enables management to assess the impact on the shipyards and ship systems of

- Changes in depot-level maintenance/alterations policy
- Major changes in force levels and/or composition
- Budgetary constraints

DMPPS consists of a network of interdependent computer programs written in FORTRAN IV. It was developed at DTNSRDC using the CDC 6000 series computers and was subsequently converted for the IBM 360/370 series computers. It is now installed and operational at the NAVSEA 070 computer terminal (which accesses an IBM 370/168 computer). This document presents the IBM 360/370 version of the DMPPS program modules. The modules have been grouped into six subsystems. Each of Volumes 2-7 of this document describes, in detail, one of these subsystems. An executive summary of the entire DMPPS is presented in Volume 1. The content of the seven volumes is indicated as follows:

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- Volume 6 - Report Generator Subsystem
- Volume 7 - Feedback Subsystem

2. PREPROCESSOR SUBSYSTEM

The Preprocessor Subsystem of the Depot Maintenance Planning and Programming System (DMPPS) is responsible for preparing the initial version of the Depot Maintenance Assignment File (DMAF). DMAF is one of the key files of the DMPPS. It contains a list of all shipwork anticipated for each of the Naval and privately-owned shipyards, broken down by six-month periods. The file covers the five-year period to be reported on (as selected by the user). It is, essentially, an extract of the Long Range Planning System (LRPS) Assignment Files prepared by the Naval Sea Systems Command, Code 071. DMAF differs from the LRPS Assignment Files in the following ways:

- Only "depot maintenance"* shipwork is extracted from the LRPS Assignment Files.
- The format of each of the records of DMAF differs from those of the LRPS Assignment Files.
- Some of the information on the LRPS records is not carried over onto DMAF (i.e., homeport, specialization category, type select, and docking parameters).
- Each DMAF record contains space for the repair and alterations matrix numbers which are required by DMPPS (but not by the Long Range Planning System).
- Some of the information is specified differently on DMAF. For example, the shipyard is specified by a number on the LRPS Assignment File, but is converted to a five-letter designation for DMAF.

*"Depot maintenance" shipwork is all depot-level repair/alterations work to be reported to OSD(I&L) under DOD Instruction 4151.15. It includes all shipwork other than new construction, fitting out and post shakedown.

The Preprocessor Subsystem consists of three programs (PRELIM, ERRCHK, and UPDEP) and a sort routine. The major functions of these components are described as follows:

Program PRELIM

PRELIM creates the initial version of DMAF (DMAF-0). It examines each of the records of the LRPS Assignment Files, discards all records not within the selected five-year period, and determines whether or not each record describes depot maintenance work. All depot maintenance work is placed on DMAF-0 in the required format. Non-depot maintenance work is saved on another file ("NON-DEPOT"), using the format for DMAF records.

Sort

A sort must be made on the version of DMAF created by PRELIM. It sorts DMAF first by ship, then by availability start date, then by sequence number, and finally by semi-annual period. The sort routine must also be run whenever ERRCHK is run. It is described in detail in Section 2.2 (program ERRCHK) and is incorporated into the run set-up for ERRCHK.

Program ERRCHK

ERRCHK examines each record of the sorted DMAF for errors in sequence number and/or percent alterations and prints a list of the errors encountered. It also creates a new DMAF (DMAF-1), which differs from the sorted version of DMAF-0 in that the records are numbered and the "continuation indicator" field has been checked and corrected, if necessary.

Program UPDEP

UPDEP is used within the DMPPS to revise, insert, or delete DMAF records. Although it may be used to update any of the versions of DMAF, it is usually used only to update DMAF-1 on the basis of "errors" discovered by the ERRCHK program (Section 2.2) or the MATCH program (Section 3.1).

Figure 2.0-1 illustrates the interrelationships of the various programs and files of the Preprocessor Subsystem.

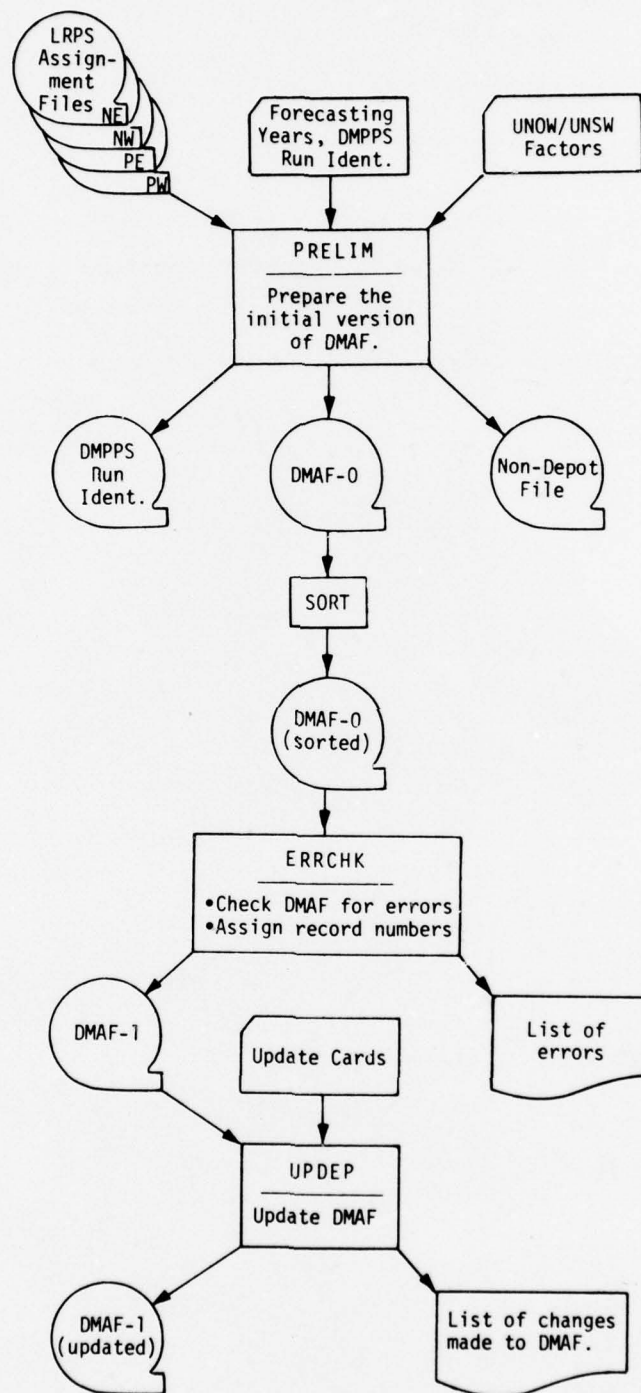


Figure 2.0-1 - Schematic Diagram of the Preprocessor Subsystem

2.1 PROGRAM PRELIM

2.1.1 DESCRIPTION

PRELIM reads the LRPS Assignment Files, extracts pertinent information from them, and creates a new file, the Depot Maintenance Assignment File (DMAF), which contains a list of all shipwork scheduled for a five-year period (the forecasting period). DMAF contains only that shipwork which is to be reported on under the automated Depot Maintenance Planning and Programming System (DMPPS) established by the Office of the Secretary of Defense (Installation and Logistics) through DOD Instruction 4151.15. Any other shipwork, termed herein "non-depot maintenance" shipwork, is placed on another file, "Non-Depot".

There are four LRPS Assignment Files, one for each of the four sectors--Navy East (NE), Navy West (NW), Private East (PE), and Private West (PW). The sectors denote the ownership and coastal location of the shipyard where the shipwork is to be performed. The first four records on each file are header records which contain general information such as file identification and shipyard number/name cross-reference. PRELIM generates a file, "DMAF Run Identification", which contains DMPPS run identification information (input by the user on a card) and the LRPS Assignment File identifications extracted from each of the four sector files of the LRPS. This information enables the user to determine, at any time, the version of LRPS that was used to create the current DMAF.

In addition to the four header records, each LRPS sector file contains a list of all shipwork scheduled for the next 10 years for the shipyards within the sector. The shipwork is described in terms of the mandays required for the various scheduled availabilities. Availabilities are identified by ship, availability start and end dates, sequence number, and type of work. The total manday requirements for an availability are broken down into the amounts required during each of the six-month periods (of a fiscal year) within which the availability falls. The LRPS Assignment Files contain one record for each six-month period of each availability.

Each record on DMAF corresponds to one of the LRPS records. However, any records which describe a portion of an availability not within the (input) five-year forecasting period are discarded. Also discarded are any records with a ship type field of "UDOC", "FL", or "DDSN". In addition, the sector designation on records describing shipwork scheduled for Newport News ("SNEWS"), Groton ("SGROT"), or Pascagoula ("SPASC") is changed by PRELIM from "PE", to "NE".

Pertinent information from all other LRPS records is placed on either DMAF or the Non-Depot File, as appropriate. Some of the LRPS parameters must be converted to a different form for DMAF. This entails the following processing:

- The yard number specified on LRPS records is converted to the appropriate four or five-letter yard designation used on DMAF. Table 2.1-1 lists the Navy shipyards and their designations.

TABLE 2.1-1 - NAVAL SHIPYARD DESIGNATIONS

East Coast Shipyards

CHASN - Charleston Naval Shipyard
NORVA - Norfolk Naval Shipyard
PHILA - Philadelphia Naval Shipyard
PTSMH - Portsmouth Naval Shipyard

West Coast Shipyards

LBECH - Long Beach Naval Shipyard
MARE - Mare Island Naval Shipyard
PEARL - Pearl Harbor Naval Shipyard
PUGET - Puget Sound Naval Shipyard

- The start and end availability dates are specified on LRPS as relative dates (i.e., number of days since 1 October of the LRPS base year*). They must be converted to their Gregorian date equivalent.
- The six-month period number specified on the LRPS record must be converted to fiscal year and period within the fiscal year for the portion of an availability described by the record. The LRPS period numbers range from 1 to 20, with period 1 representing the six-month period starting with 1 October of the LRPS base year. DMAF, however, employs a different scheme for designating the six-month period covered by the record. The fiscal year and six-month period (first or second) within the fiscal year are stored on DMAF.
- The continuation indicator designation must be modified for DMAF. LRPS uses the characters "(C)" to indicate that the record is not the first on the file for a particular availability. DMAF, however, uses an asterisk ("*") for the same purpose. Both files denote the availability's first record by blank(s).

The final function of PRELIM is to divide all Navy UNOS work (Unscheduled/Other Shipwork) into its UNSW (Unscheduled Shipwork) and UNOW (Other Shipwork) components. PRELIM performs this task by reading, for each Naval shipyard, the fractions to be used to split the UNOS work and the number of the matrix to be assigned to the UNSW and UNOW portions. When an LRPS record with a ship type field containing "UNOS" is encountered for

*The LRPS base year is found on the fourth record of the LRPS Assignment File. It represents the first year for which a schedule of availabilities exists on the file.

one of the Navy yards, PRELIM uses the appropriate fractions to determine the UNOW mandays and the UNSW mandays. It then generates two records on DMAF--one with a ship type field of "UNOW" and one with "UNSW". The computed mandays for the category are placed on the record, the applicable matrix number is assigned as the repair matrix number, and the percent alterations field is set to zero.

PRELIM consists only of a main program (no subroutines or functions). It performs all of the tasks so far described. No printed messages are generated.

2.1.2 RUN SET-UP

The following set-up is used to run the PRELIM program on the IBM 360/370 computer:

```
//NVSPREL2 JOB (XXXXXXXXXX,XXXXX),USER,CLASS=C,TIME=(,15),MSGLEVEL=1
//J0RLIB DD DSN=NVS01.DEPOT.LIB,DISP=SHR

// EXEC PGM=PRELIM2                                (EXECUTE PROGRAM PRELIM2)
//GO.FT05F001 DD *

PRELIM card inputs (unit 5)

//GO.FT06F001 DD SYSOUT=A                            (NOT USED)
//GO.FT01F001 DD DSN=WOPC.A010054.A9967.NEOUT,DISP=SHR (INPUT FILE)
//GO.FT02F001 DD DSN=WOPC.A010054.A9967.NWOUT,DISP=SHR (INPUT FILE)
//GO.FT03F001 DD DSN=WOPC.A010054.A9967.PEOUT,DISP=SHR (INPUT FILE)
//GO.FT04F001 DD DSN=WOPC.A010054.A9967.PWOUT,DISP=SHR (INPUT FILE)
//GO.FT07F001 DD DSN=NVS01.DMAF0.DATA,DISP=SHR         (OUTPUT FILE)
//GO.FT08F001 DD DSN=NVS01.DMAF.RUNID.DATA,DISP=SHR   (OUTPUT FILE)
//GO.FT09F001 DD DSN=NVS01.NONDEPOT.DATA,DISP=SHR    (OUTPUT FILE)
```

2.1.3 INPUTS

Card inputs are made using unit 5. The format for these cards is presented in Section 2.1.3.1.

Unit 5 - Card inputs which specify (1) the first fiscal year to be included on the DMAF, and (2) UNOW/UNSW processing information.

The following additional units are used to input information from disk files created by the Long Range Planning System (LRPS):

Unit 1 - LRPS Assignment File, NE

Unit 2 - LRPS Assignment File, NW

Unit 3 - LRPS Assignment File, PE

Unit 4 - LRPS Assignment File, PW

The format for these files is described in Section 2.1.3.2.

2.1.3.1 Unit 5 - Card Inputs

Forecast Period Card. This card must appear as the first input card.
Its format is:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IFYST	First fiscal year of depot maintenance forecast	1-2	I2
RUNID(10)	DMPPS run identification	4-43	10A4

UNOS Processing Control Cards. There must be exactly eight cards of this type, one for each of the Naval shipyards. The format for the UNOS processing control cards is:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
YARD(I)	Shipyards	1-5	A5
MUNSW(I)	Matrix number* to be assigned to UNSW work in this shipyard	10-13	I4
FUNSW(I)	Fraction of UNOS work which is UNSW**	19-24	F6.4
MUNOW(I)	Matrix number* to be assigned to UNOW work in this shipyard	28-31	I4
FUNOW(I)	Fraction of UNOS work which is UNOW**	38-43	F6.4

*The matrix numbers must be between 2800 and 3000 (inclusive).

**The fractions FUNSW and FUNOW for each yard must sum to 1.0.

2.1.3.2 Units 1-4 - Long Range Planning System (LRPS) Assignment Files

The LRPS Assignment Files contain schedules of availabilities of shipyard resources, type of work to be performed, and start and end dates of each availability for all Naval vessels for the "current" and nine succeeding years. The shipyards in the LRPS Assignment Files are subdivided into sectors which are represented by shipyard ownership and coastal locations (i.e., Navy East, Navy West, Private East and Private West). The LRPS Assignment Files are created by the Long Range Planning System which was developed to provide assistance in long range scheduling and workload projections for Naval shipwork in domestic yards.

The LRPS Assignment Files must be input to the PRELIM program using the following units:

<u>Unit</u>	<u>Sector</u>
1.	Navy East Assignment File
2.	Navy West Assignment File
3.	Private East Assignment File
4.	Private West Assignment File

The formats for each of these files are identical and are described as follows:

Header Record 1. This record is the first record on each of the LRPS Assignment Files. Its format is:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
YDNMF(10)	Names of the shipyards on the file	21-80	10(A5,1X)

Header Records 2 and 3. These two records are not used by the PRELIM program.

Header Record 4. The format for this record is:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
LRPSID(6)	LRPS Assignment File identification	5-28	6A4
IFSTYR	First calendar year of the file	29-30	I2

Ship Records. There is one record of the following format for each semi-annual period of a fiscal year within which each availability falls:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IYDNO	Yard number	1-2	I2
IPDNO	Period number	3-4	I2
DKID	Dock availability assignment	5-7	A3
CONT	Continuation indicator	8-10	A3
ISHIP	Ship type	11-14	A4
HULL	Hull number	16-19	A4
HMPT	Home port	20-24	A5
IDKDY	Dockdays	25-27	I3
IMNDY	Mandays	28-34	I7
ISTRTR	Relative start date	35-38	I4
IEND	Relative end date	39-42	I4
IDKCLS	Dock class	43-44	I2
IDKPD	Period ship docks	45-46	I2
IUDKPD	Period ship undocks	47-48	I2
SPEC	Specialization	49-52	A4
ICRV	Labor distribution histrogram number	53-54	I2
ITOTDY	Total dock days	55-58	I4
ITOTMN	Total mandays	59-65	I7
AVAIL	Type of work	66-68	A3
IPRIO	Priority	69-70	I2

Ship Records (Continued)

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
ISRES	Docking start restraint	71-73	I3
IERES	Docking end restraint	74-76	I3
ISDQ	Sequence number	77-80	I4
ILAP	Days overlap	81-85	I5
IPCTA	Percent alterations	87-89	I3

Trailer Records. This record is the last record on each of the LRPS Assignment Files. Its format is:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
	Contains "9999"	1-4	I4

2.1.4 OUTPUTS

PRELIM uses the following units to store information on disk for use by subsequent programs:

Unit 7 - Depot Maintenance Assignment File, Version 0
(DMAF-0)

Unit 8 - DMAF Identification File

Unit 9 - Non-Depot Maintenance Assignment File

The formats for these files are given in Sections 2.1.4.1 through 2.1.4.3.
No hardcopy output is generated.

2.1.4.1 Unit 7 - Depot Maintenance Assignment File, Version 0 (DMAF-0)

DMAF-0 contains information describing all depot maintenance ship availabilities scheduled for yard-work at both Navy and privately-owned shipyards during the selected five-fiscal-year period. Depot maintenance availabilities are those availabilities with a type of work other than Fitting Out (FO), Post Shakedown (PS), or New Construction (NC).

Each record of DMAF-0 corresponds to a record on one of the LRPS Assignment Files. Thus, there is a record on DMAF for each semi-annual period that an availability falls within, providing that (a) the availability is a "depot maintenance" availability, and (b) the semi-annual period is within the 5-year forecasting period.

The format for each record of DMAF-0 is as follows:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
Y	Shipyard	1-5	A5
ISHIP	Ship type	6-9	A4
IHULL	Hull number	10-13	I4
ISEQ	Sequence number	14-17	I4
CONT	Continuation indicator	18	I1
AVAIL	Type work	19-21	A3
ISTMO	Start month	22-23	I2
ISTDY	Start day	24-25	I2
ISTYR	Start year	26-27	I2
IEDMO	End month	28-29	I2
IEDDY	End day	30-31	I2
IEDYR	End year	32-33	I2
SPEC	Specialization category	34-36	A3
SEC	Sector	37-38	A2
NOWYR	Fiscal year (this record)	39-40	I2
IPEP	Period (this record)	41	I1
IMNDY	Production shop productive (PSP) mandays (this period)	42-48	I7
ITOTMN	Total PSP mandays	49-55	I7

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
MATNOR	Repair matrix number	56-59	I4
MATNOA	Alterations matrix number	60-63	I4
IPCTA	Percent alterations	64-66	I3
ICRV	Labor distribution histogram number	67-68	I2

2.1.4.2 Unit 8 - DMAF Identification File

The DMAF Identification File contains information identifying the current DMPPS run, and LRPS Assignment File identification.

DMAF Identification Record. This record is the first record on the file.

Its format is:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IFYST	First fiscal year of DMPPS forecasting period	1-2	I2
RUNID(10)	DMPPS run identification	4-43	10A4

LRPS Identification Records. Four records of the following format form records 2-5 of the file. Each is an extract of the fourth record of one of the LRPS Assignment Files.

2.1.4.3 Unit 9 - Non-Depot Maintenance File

This file contains information on ship-availabilities not considered to be "depot maintenance" availabilities. Availabilities with the following types of work fall within this category:

FO - Fitting Out

PS or PSA - Post Shakedown

NC or PNC - New Construction

The format for each record on the file is the same as that given in Section 2.1.4.1 (DMAF-0).

2.1.5 PROGRAM LISTING

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C-----READ LIST OF YARDS ON LRPS FILE. -----	PREL 560
READ (J,130) YONME	PREL 570
130 FORMAT(T21,10(A5,1X)///)	PREL 580
C	PREL 590
C-----READ FIRST CALENDAR YEAR AND IDENT. OF LRPS ASSIGNMENT FILE.	PREL 600
READ (J,150) LRPSID,IFSTYR	PREL 610
150 FORMAT (4X,6A4,I2)	PREL 620
WRITE (8,160) LRPSID	PREL 630
160 FORMAT (6A4)	PREL 640
C	PREL 650
C-----READ LRPS ASSIGNMENT FILE RECORD-----	PREL 660
170 READ(J,200) IYONO,IPONO,DKID,CONT,SHIP,IHULL,HMPT,DKDY,IMNDY,	PREL 670
A ISTRT,IEND,DKCLS,DKKPD,IUOKPD,SPEC,ICRV,ITOTDY,	PREL 680
B ITOTMN,AVAIL,IPRIO,ISRES,IERES,ISEQ,ILAP,IPCTA	PREL 690
200 FORMAT(2I2,2A3,A4,1X,I4,A5,I3,I7,2I4,3I2,A4,I2,I4,I7,A3,I2,2I3,	PREL 700
A I4,I5,1X,I3)	PREL 710
C	PREL 720
C-----TEST FOR END OF LRPS ASSIGNMENT FILE-----	PREL 730
IF(IYONO.EQ. 99 .AND. IPONO.EQ. 99) GO TO 400	PREL 740
C	PREL 750
C-----TEST FOR INVALID SHIP TYPES-----	PREL 760
IF (SHIP.EQ.UOOC .OR. SHIP.EQ.FL .OR. SHIP.EQ.DDSN) GO TO 170	PREL 770
C	PREL 780
C-----CALCULATE FISCAL YEAR-----	PREL 790
NOWYR = IFSTYR + (IPONO - MOD(IPONO - 1,2))/2 + 1	PREL 800
C	PREL 810
C-----TEST IF SHIP WITHIN FISCAL YEAR LIMITS-----	PREL 820
IF (NOWYR.LT. IFYST .OR. NOWYR.GT. IFYEND) GO TO 170	PREL 830
C	PREL 840
C-----IF TYPE OF WORK IS MAP, SET PERCENT ALT TO ZERO. -----	PREL 850
IF (AVAIL.NE.MAP) GO TO 210	PREL 860
IPCTA=0	PREL 870
MATNOA=1500	PREL 880
C	PREL 890
C-----TEST FOR AVAILABILITY OVERLAP-----	PREL 900
210 IF(ILAP.LT. 0) GO TO 220	PREL 910
IEND = IEND + ILAP	PREL 920
GO TO 230	PREL 930
C	PREL 940
C-----CORRECT START AND END DATES FOR OVERLAPPING WORK -----	PREL 950
220 ISTRT = ISTRT + ILAP	PREL 960
C	PREL 970
C-----CALCULATE START AND END DATES-----	PREL 980
230 IEND = IEND + 180	PREL 990
ISTRT = ISTRT + 180	PREL1000
IEDYR = IEND / 360 + IFSTYR	PREL1010
IF(ISTRT.GE. 0) GO TO 250	PREL1020
ISTYR = IFSTYR	PREL1030
240 ISTRT = ISTRT + 360	PREL1040
ISTYR = ISTRT - 1	PREL1050
IF(ISTRT.LT. 0) GO TO 240	PREL1060
GO TO 260	PREL1070
250 ISTRT = ISTRT / 360 + IFSTYR	PREL1080
260 IEDMO = MOD(IEND,360) / 30 + 1	PREL1090
ISTMO = MOD(ISTRT,360) / 30 + 1	PREL1100
IEDDY = MOD(IEND,30) + 1	PREL1110
ISTDY = MOD(ISTRT,30) + 1	PREL1120
IPER = MOD(IPONO - 1,2) + 1	PREL1130
C	PREL1140
C-----INSERT PROVISION FOR NEW FISCAL YEARS-----	PREL1150

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```

ISTMO = ISTMO + 3
IEDMO = IEDMO + 3
IF (ISTMO.LE.12) GO TO 270
ISTMO = ISTMO - 12
ISTYR = ISTR + 1
270 IF (IEDMO.LE.12) GO TO 280
IEDMO = IEDMO - 12
IEDYR = IEDYR + 1

C
C-----SET UP CONTINUATION FIELD-----
280 IF (CONT.NE. BLANK) CONT = ASTR
SEC = SECTOR(J)
Y = YDNHE(IYDNO)
IF (Y.EQ.SNEWS.OR. Y.EQ.SGROT.OR. Y.EQ.SPASC) SEC = SECTOR(3)

C
C-----WRITE NON DEPOT MAINTENANCE AVAILABILITIES ON UNIT 9-----
IUNIT = 7
IF (AVAIL.EQ.FO.OR.AVAIL.EQ.PS.OP.AVAIL.EQ.PSA.OR.
A AVAIL.EQ.RNC.OR.AVAIL.EQ.NC) IUNIT = 9

C
C-----SPLIT UNOS INTO UNOW AND UNSW COMPONENTS - GO TO 156-----
IF (SHIP.EQ.UNOS) GO TO 320

C
C-----WRITE DMAP RECORD-----
300 WRITE (IUNIT,310) Y,SHIP,IHULL,ISEQ,CONT,AVAIL,ISTMO,
A ISTDY,ISTYR,IEDMO,IEDDY,IEDYR,SPEC,SEC ,NOWYR,
IPER,IMNDY,ITOTMN,IPCTA,ICRV
310 FORMAT(A5,A4,2I4,A1,A3,6I2,A3,A2,I2,I1,2I7,8X,I3,I2)
GO TO 170

C
C-----IF PRIVATE SECTOR - DO NOT SPLIT UNOS-----
320 AVAIL=OS
IPCTA = 0
MATNOA=1500
IF (SEC.EQ.SECTOR(3).OR.SEC.EQ.SECTOR(4)) GO TO 300

C
C-----SET ALT MATRIX NUMBER, PERCENT ALT TO ZERO
C-----ALSO STORE VALUE OF MANDAYS-----
ITEMP1 = IMNDY
ITEMP2 = ITOTMN

C
C-----DETERMINE YARD FOR THIS UNOS-----
DO 350 I1 = 1,8
IF (Y.EQ.YARD(I1)) GO TO 360
350 CONTINUE

C
C-----IF NOT AN INPUT YARD - DO NOT SPLIT THE UNOS-----
GO TO 300

C
C-----WRITE UNSW DMAP RECORD-----
360 IMNDY = ITEMPI*FUNSW(I1)
ITOTMN = ITEMPI*FUNSW(I1)
SHIP = UNSW
MATNOR = MUNSW(I1)
AVAIL=SW
WRITE (IUNIT,370) Y,SHIP,IHULL,ISEQ,CONT,AVAIL,ISTMO,
A ISTDY,ISTYR,IEDMO,IEDDY,IEDYR,SPEC,SEC ,NOWYR,
IPER,IMNDY,ITOTMN,MATNOR,MATNOA,IPCTA,ICRV
370 FORMAT(A5,A4,2I4,A1,A3,6I2,A3,A2,I2,I1,2I7,2I4,I3,I2)
C

```

PREL1160
 PREL1170
 PREL1180
 PREL1190
 PREL1200
 PREL1210
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 PREL1230
 PREL1240
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 PREL1740
 PREL1750

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C-----WRITE UNOW ONAF RECORD-----	PREL1760
IMNDY = ITEMP1*FUNOW(I1)	PREL1770
ITOTMN = ITEMP2*FUNOW(I1)	PREL1780
SHIP=UNOW	PREL1790
MATNOR = MUNOW(I1)	PREL1800
AVAIL=ON	PREL1810
WRITE (IUNIT,370) Y,SHIP,IMULL,ISEQ,CONT,AVAIL,ISTMO,	PREL1820
A ISTDY,ISTYR,IEDMO,IEDDY,IEDVR,SPEC,SEC ,NOWYR,	PREL1830
. IPER,IMNDY,ITOTMN,MATNOR,MATNOA,IPCTA,ICRV	PREL1840
GO TO 170	PREL1850
400 CONTINUE	PREL1860
STOP	PREL1870
END	PREL1880

2.1.6 GLOSSARY

LOCAL VARIABLES

Main Program

ASTR	Contains the characters "*****".
AVAIL	Type of work for the current availability.
BLANK	Contains one blank space.
CONT	Continuation indicator.
DDSN	Contains the characters "DDSN".
DKID	Dock identification for the current availability.
FL	Contains the characters "FL".
FO	Contains the characters "FO".
FUNOW(8)	Fraction of UNOS for UNOW. Subscript refers to the shipyard (see YARD array).
FUNSW(8)	Fraction of UNOS for UNSW. Subscript refers to the shipyard (see YARD array).
HMPT	Homeport for the current ship.
ICRV	Labor distribution histogram number for the current availability.
IDKCLS	Dock class for the current availability.
IDKDY	Dock days (current LRPS Assignment File record).
IDKPD	Dock period (current LRPS Assignment File record).
IEDDY	End date of the current availability (day).
IEDMO	End date of the current availability (month).
IEDYR	End date of the current availability (year).
IEND	End "date" of the current availability relative to 1 Oct IFSTYR.
IERES	End restraint on dock time for the current availability.
IFSTYR	First calendar year for which a complete schedule of availabilities exists on the LRPS Assignment File.

Main Program (continued)

IFYFND	Last fiscal year for which a complete schedule of availabilities exists on DMAF.
IFYST	First fiscal year for which a complete schedule of availabilities exists on DMAF.
IHULL	Hull number of the current ship.
ILAP	Indicates whether or not the current availability falls entirely within the 10-year period of the LRPS Assignment File. If ILAP = 0, the availability is within the 10-year period. If ILAP > 0, the availability ends ILAP days after the end of the 10-year period. If ILAP < 0, the availability starts ILAP days before the beginning of the 10-year period.
IMNDY	Mandays required for work during the 6-month period described by the current record.
IPCTA	The percent of total production shop productive mandays to be expended on alterations work for the current availability.
IPDNO	The number of the 6-month period of the current LRPS record. The periods are numbered from 1 to 20, with period 1 beginning on Oct 1st of year IFSTYR.
IPER	Period indicator for the current DMAF record. IPER equals "1" if the record pertains to the first half of fiscal year NOWYR, "2" if the record pertains to the second half of fiscal year NOWYR.
IPRIO	Priority of the current availability.
ISEQ	Sequence number of the current availability.
ISRES	Start restraint (in days) on time in dry dock for the current availability.
ISTDY	Start date of the current availability (day).
ISTMO	Start date of the current availability (month).
ISTR	Start "date" of the current availability, relative to 1 Oct of IFSTYR.
ISTYR	Start date of the current availability (year).

Main Program (continued)

ITEMP1	Production shop productive mandays for the current period (see IPER) of the current availability.
ITEMP2	Total production shop productive mandays for the current availability.
ITOTDY	Number of days in dry-dock for the current availability.
ITOTMN	Total production shop productive mandays for the current availability.
IUDKPD	Dock period.
IUNIT	Variable unit number. IUNIT is set to "7" if the current availability is a depot maintenance availability; otherwise, it is set to "9".
IYDNO	The number of the yard for the current availability (read from the LRPS Assignment File).
II	DO-loop index.
J	DO-loop index.
LRPSID(6)	LRPS Assignment File identification (current sector).
MAP	Contains the characters "MAP".
MATNOA	Alterations matrix number for the current availability.
MATNOR	Repair matrix number for the current availability.
MUNOW(8)	Matrix number to be assigned to UNOW work done by the shipyard indicated by the subscript.
MUNSW(8)	Matrix number to be assigned to UNSW work done by the shipyard indicated by the subscript.
NC	Contains the characters "NC".
NOWYR	Fiscal year of the current DMAF record (see IPER).
OS	Contains the characters "OS".
OW	Contains the characters "OW".
PS	Contains the characters "PS".

Main Program (continued)

PSA	Contains the characters "PSA".
RNC	Contains the characters "RNC".
RUNID(10)	DMPPS run identification.
SEC	Sector of the current availability.
SECTOR(4)	Array containing the following sets of characters: (1) "PW", (2) "NW", (3) "NE", and (4) "PE".
SGROT	Contains the characters "SGROT".
SHIP	Ship type of the current availability.
SNEWS	Contains the characters "SNEWS".
SPASC	Contains the characters "SPASC".
SPEC	Specialization category for the current availability.
SW	Contains the characters "SW".
UDOC	Contains the characters "UDOC".
UNOS	Contains the characters "UNOS".
UNOW	Contains the characters "UNOW".
UNSW	Contains the characters "UNSW".
Y	Shipyards of the current availability.
YARD(8)	List of shipyards whose UNOS work is to be split into two parts--UNOW and UNSW.
YDNME(10)	List of shipyards within a sector, as read from the LRPS Assignment File.

2.1.7 SAMPLE RUN

The sample run of PRELIM used, as inputs, extracts of actual LRPS Assignment Files created by NAVSEA 071. These extracts contained the required header records, the trailer record, and only those ship records which pertained to CGN 9-CV 62 ships. The input cards used in the sample run indicate that fiscal years 78-82 were selected as the five years of interest. In addition, the input cards give the UNOW/UNSW fractions used by NAVSEA during their full-scale runs. The remainder of this section presents listings of the input cards and input/output files used by PRELIM for the sample run.

Unit 5 - Card Inputs

78 DMPPS SAMPLE RUN - FEB 1977				
NORVA	2951	.7693	2901	.2307
CHASN	2952	.4964	2902	.5036
PTSMH	2953	.1973	2903	.8027
PHILA	2954	.5030	2904	.4970
LBECH	2955	.6067	2905	.3933
PUGET	2956	.3258	2906	.6742
MARE	2957	.3662	2907	.6338
PEARL	2958	.7487	2908	.2513

Unit 1 (Input) - LRPS Assignment File (Navy Fast)

0 1	PTSMH	S320T	P4ILA	SNEMS	NORVA	CHASN	SPASC	LOFVN	LOFYD	82-II
0 2	78-I	79-I	80-I	81-I	82-I	83-I	84-I	85-I	86-I	87-I
0 3	83-I	84-I	85-I	86-I	87-I	88-I	89-I	90-I	91-I	92-I
0 4	NE-J4	1104760	OFFICIAL	JSE77	NAVAL	SHIPYARDS	EAST	COAST		
4 1G01	CGN	390	05	20	0	34	9546	1	1AAN	1
4 3G01	CGN	400	05	20	5000	395	45446	3	3AAN	1
4 5G01	CGN	410	05	11	618	886	94546	5	6AAN	1
4 6G01(C)	CGN	410	05	9	4381	886	94546	5	6AAN	1
5 1G08	CV	62MORVA	100	140469	50	378	5	1	1CVA	23
5 2G08(C)	CV	62MORVA	0	193596	50	378	5	1	1CVA	23
5 2---	CGN	37MORVA	0	20400	260	321462121AAN	1	0	20400RA	3
5 2G03	CGN	39MORVA	15	31554	265	38446	2	2AAN	1	15
5 3G08(C)	CV	62MORVA	0	6286	50	378	5	1	1CVA	23
5 3G03(C)	CGN	39MORVA	0	3445	265	38446	2	2AAN	1	15
5 4G08	CV	60MAYPT	30	134344	559	780	5	4	4CVA	23
5 4G04	CGN	40MORVA	15	30588	645	76546	4	4AAN	1	15
5 4---	CGN	38MORVA	0	11955	662	721462121AAN	1	0	12000RA	3
5 4---	CV	62MORVA	0	23389	690	775	52121CVA	17	0	69170RA
5 5G08(C)	CV	60MAYPT	0	45055	559	780	5	4	4CVA	23
5 5G04(C)	CGN	40MORVA	0	14411	645	76546	4	4AAN	1	15
5 5---	(C) CGN	38MORVA	0	44	662	721462121AAN	1	0	12000RA	3
5 5---	(C) CV	62MORVA	0	39780	690	775	52121CVA	17	0	69170RA
5 6---	CV	59MORVA	0	60000	9321018	52121CVA	17	0	60000RA	4
5 7G03	CGN	41MORVA	15	45000	154124946	7	7AAN	1	15	45000PS
5 7G04	CGN	37MORVA	24	63363	1171159446	7	8AAN	13	90	278000RA
5 8G04(C)	CGN	37MORVA	56	16182	1171159446	7	8AAN	13	90	278000RA
5 9G04(C)	CGN	37MORVA	0	47808	1171159446	7	8AAN	13	80	278000RA
5 9---	CV	59MORVA	0	60000	14401530	52121CVA	17	0	60000RA	4
510G03	CGN	38MORVA	80	63808	17102131461010AAN	13	80	278000RA	4	3278
511G03(C)	CGN	38MORVA	0	16182	17102131461010AAN	13	80	278000RA	4	3278
512G03(C)	CGN	38MORVA	0	46371	17102131461010AAN	13	80	278000RA	4	3278
512G08	CV	59MORVA	100	206480	19802340	51212CVA	22	100	396000RA	4
513G08(C)	CV	59MORVA	0	183981	19802340	51212CVA	22	100	396000RA	4
513---	CGN	41MORVA	0	30002	160220462121AAN	1	0	8000RA	3	0
514G08(C)	CV	59MORVA	0	5371980	2340	51212CVA	22	100	396000RA	4
515G04	CGN	40CHASN	80	8314526	122372461515AAN	13	80	279000RA	4	3226
516G04(C)	CGN	40CHASN	0	17203326	122972461515AAN	13	80	279000RA	4	3226
517G04(C)	CGN	40CHASN	0	2342026	122372461515AAN	13	80	279000RA	4	3226
517---	CV	59MORVA	0	60000	28002370	52121CVA	1	0	60000RA	4
610---	CGN	40CHASN	0	12000	16501710462121AAN	1	0	12000RA	3	0

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Unit 2 (Input) - LRPS Assignment File (Navy West)

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Unit 4 (Input) - LRPS Assignment File (Private West)

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Unit 7 (Output) - Depot Maintenance Assignment File, Version 0

NORVACV	62	40	RO	112177101978CVANE781	140469	346352	4123
NORVACV	62	40	*RO	112177101978CVANE782	199596	346352	4123
NORVACGN	37	4	RA	62178 82278AANNE782	20400	20400	39 1
NORVACV	62	40	*RO	112177101978CVANE791	6286	346352	4123
NORVACV	60	60	RO	4207912 179CVANE792	194944	240000	4723
NORVACGN	38	4	RA	8 37910 279AANNE792	11955	12000	32 1
NORVACV	62	41	RA	9 179112679CVANE792	29389	69170	4217
NORVACV	60	60	*RO	4207912 179CVANE801	45055	240000	4723
NORVACGN	38	4	*RA	8 37910 279AANNE801	44	12000	32 1
NORVACV	62	41	*RA	9 179112679CVANE801	39780	69170	4217
NORVACV	59	42	RA	5 380 72980CVANE802	60000	60000	4317
NORVACGN	37	10	RO	1 281 3 582AANNE811	68369	278000	1413
NORVACGN	37	10	*RO	1 281 3 582AANNE812	161821	278000	1413
NORVACGN	37	10	*RO	1 281 3 582AANNE821	47808	278000	1413
NORVACV	59	43	RA	10 181 1 182CVANE821	60000	60000	4417
NORVACGN	38	10	RO	7 182 9 283AANNE822	69808	278000	913
CHASNCGN	40	4	RA	5 182 7 182AANNE822	12000	12000	100 1
LBECHCV	43	40	RO	113077112978CVANW781	124004	342067	1724
LBECHCV	43	40	*RO	113077112978CVANW782	199985	342067	1724
LBECHCV	43	40	*RO	113077112978CVANW791	18076	342067	1724
LBECHCV	41	40	RO	101280101281CVANW811	179097	396045	0 1
LBECHCV	41	40	*RO	101280101281CVANW812	215472	396045	0 1
LBECHCV	41	40	*RO	101280101281CVANW821	1474	396045	0 1
PUGETCV	61	50	RO	21577 21578CVANW781	111606	443300	3824
PUGETCV	41	36	RA	111078 11179CVANW791	40000	40000	4817
PUGETCGN	25	24	RA	11579 31579AANNW791	30000	30000	20 1
PUGETCGN	36	4	RA	11579 41679AANNW791	43925	47204	24 1
PUGETCGN	35	11	RA	11579 31579AANNW791	12000	12000	100 1
PUGETCGN	36	4	*RA	11579 41679AANNW792	3278	47204	24 1
PUGETCGN	9	30	C	4 179 4 182AANNW792	82471	739000	0 9
PUGETCGN	39	4	RA	71579 91579AANNW792	12000	12000	100 1
PUGETCGN	9	30	*C	4 179 4 182AANNW801	163508	739000	0 9
PUGETCGN	9	30	*C	4 179 4 182AANNW802	164152	739000	0 9
PUGETCGN	36	10	RO	41480 61481AANNW812	116368	278550	14 9
PUGETCGN	9	30	*C	4 179 4 182AANNW811	163582	739000	0 9
PUGETCGN	36	10	*RO	41480 61481AANNW811	144621	278550	14 9
PUGETCGN	9	30	*C	4 179 4 182AANNW812	123009	739000	14 9
PUGETCGN	36	10	*RO	41480 61481AANNW812	17560	278550	14 9
PUGETCGN	35	0	RO	6 181 8 182AANNW812	75760	298507	1419
PUGETCGN	9	30	*C	4 179 4 182AANNW821	42207	739000	0 9
PUGETCGN	35	0	*RO	6 181 8 182AANNW821	165233	298507	1419
PUGETCGN	9	30	*C	4 179 4 182AANNW822	68	739000	0 9
PUGETCGN	35	0	*RO	6 181 8 182AANNW822	57513	298507	1419
PUGETCGN	25	30	RO	6 182 8 183AANNW822	75760	298507	1419
D 06 CV	60	53	RA	1 678 4 378CVAPE781	86977	89360	4017
D 06 CV	60	53	*RA	1 678 4 378CVAPE782	2382	89360	4017
D 06 CV	59	41	RA	11 378 12979CVAPE791	73258	73258	3917
D 06 CV	60	61	RA	7 18210 182CVAPE822	59484	60000	4217
D 11 CV	61	51	RA	2 180 5 180CVAPW801	44312	60000	42 1
D 11 CV	61	51	*RA	2 180 5 180CVAPW802	15687	60000	42 1
D 11 CV	62	42	RA	1 281 4 181CVAPW811	59925	60000	41 1
D 11 CV	62	42	*RA	1 281 4 181CVAPW812	74	60000	41 1
D 11 CV	61	52	RA	9 18112 181CVAPW812	14731	60000	46 1
D 11 CV	61	52	*RA	9 18112 181CVAPW821	45268	60000	46 1
D 11 CV	62	43	RA	5 182 8 182CVAPW822	60000	60000	41 1
D 12 CV	43	41	RA	31080 71180CVAPW801	2096	10000	017
D 12 CV	43	41	*RA	31080 71180CVAPW802	7903	10000	017
NWPACCV	41	35	RA	71078 91178CVAPW782	40000	40000	4917

Unit 8 (Output) - DMAF Run Identification File

78 DMPPS SAMPLE RUN - FEB 1977
NE-D4 1104760FFICIAL USE
NW-D8 1220760FFICIAL USE
PE-D2 1009760FFICIAL USE
PW-D2 1007760FFICIAL USE

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Unit 9 (Output) - Non-Depot Maintenance File

SNEWSCGN	39	2 FO 11 577 1 678AANPE 781	0	0	0 1
SNEWSCGN	40	2 FO 11 678 1 579AANPE 791	6000	6000	0 1
SNEWSCGN	41	2 FO 31780 51680AANPE 801	618	5000	0 1
SNEWSCGN	41	2*FO 31780 51680AANPE 802	4381	5000	0 1
NORVACGN	39	3 PS 62678102578AANNE 782	31554	35000	0 1
NORVACGN	39	3*PS 62678102578AANNE 791	3445	35000	0 1
NORVACGN	40	3 PS 71679111679AANNE 792	30588	45000	0 1
NORVACGN	40	3*PS 71679111679AANNE 801	14411	45000	0 1
NORVACGN	41	3 PS 121580 32081AANNE 811	45000	45000	0 1

2.2 PROGRAM ERRCHK

2.2.1 DESCRIPTION

The functions of the program ERRCHK are to re-number the records of the Depot Maintenance Assignment File (DMAF), to scan the records for errors in sequence number and/or percent alterations, and to determine the correct value for the continuation indicator. The DMAF which is input to ERRCHK is a sorted version of the file created by the program PRELIM. The sort is made on the following parameters, in the order listed:

- Ship type
- Hull number
- Availability start date (year, month, day)
- Sequence number
- Fiscal year (this record)
- Period (this record)

Each parameter is sorted in ascending order. This sort assures that all records describing a particular ship-availability will be adjacent on the file and that other records describing availabilities for the same ship will be chronologically ordered.

After the sort, the record numbers are no longer in ascending order. Therefore, ERRCHK re-numbers them, starting with one ("1") and incrementing by one for each subsequent record.

In addition, ERRCHK sets the value of the continuation indicator according to the following logic: The continuation indicator for the first record of a given ship-availability on DMAF should contain a blank. Subsequent records describing the same ship-availability should contain an asterisk ("*"). Since all records for any particular availability

appear together (after the sort), the program need only check the distinguishing parameters (i.e., ship type, hull number, availability dates, and type work) between the current record and its predecessor to determine the correct value for the continuation indicator.

In addition, ERRCHK examines the values for sequence number and percent alterations for each record on DMAF except those with the ship type field containing "UNOS" (Unscheduled/Other Shipwork), "UNSW" (Unscheduled Shipwork), "UNOW" (Other Shipwork), or "MAP" (Military Assistance Program). If an error is found in any of the other DMAF records, an error flag is set and subroutine ERROR is called to print out the appropriate error message. Table 2.2-1 presents the possible values for the error flag, the conditions under which they are set, and the error message printed out.

Figure 2.2-1 presents the hierarchical diagram of ERRCHK.

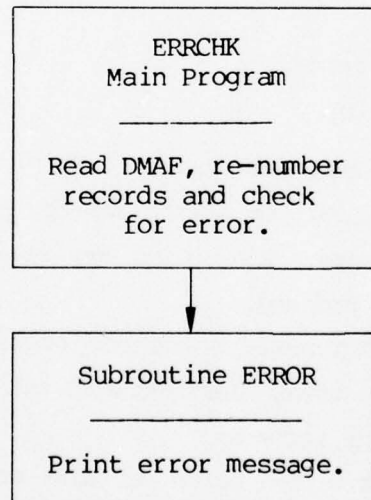


Figure 2.2-1 - ERRCHK Hierarchical Diagram

TABLE 2.2-1 - ERROR MESSAGES GENERATED BY ERRCHK

<u>Flag</u>	<u>Condition</u>	<u>Printed Message</u>
1	Sequence number is zero, negative, or blank.	INVALID SEQUENCE NUMBER
2	Percent alterations is zero and type of work is not one of the following: "NR" - Naval Reserve Training "C" - Conversion "RA" - Restricted Availability "PS" or "PSA" - Post Shakedown "FO" - Fitting Out "NC" or "RNC" - New Construction	NO PERCENT ALT.
3	Percent alterations is negative.	PERCENT ALT. LESS THAN ZERO
4	Percent alterations exceeds 100.	PERCENT ALT. GREATER THAN 100

Main Program

The main program of ERRCHK is responsible for reading in the records of DMAF, assigning a revised record number, determining the correct value of the continuation indicator, and checking the percent alterations and sequence number fields for error. If an error is found, a flag is set and subroutine ERROR is called. The main program also writes the revised DMAF records on unit 2.

Subroutine ERROR

Subroutine ERROR prints out an error message (depending on the value of the error flag) and certain key parameters needed to identify the erroneous record (i.e., record number, ship, type work, availability dates, sequence number, and percent alterations).

2.2.2 RUN SET-UP

The following set-up is used to run the ERRCHK program on the IBM 360/370 computer:

```
//NVSERCHK JOB (XXXXXXXXXX,XXXXX),USER,CLASS=C,TIME=(,10),MSGLEVEL=1
//JOBLIB DD DSN=NVS01.DEPOT.LIB,DISP=SHR

// EXEC SDA                                (SORT DMAF ONTO BACKUP FILE)
//SORTIN DD DSN=NVS01.DMAF0.DATA,DISP=SHR
//SORTOUT DD DSN=NVS01.DMAF.BACKUP.DATA,DISP=SHR
//SYSIN DD *      SORT BY SHIP, HULL, START DATE, SEQ NO, FY
                  SORT FIELDS=(6,8,A,26,2,A,22,4,A,14,4,A,39,3,A),FORMAT=CH

// EXEC PGM=ERRCHK                          (EXECUTE PROGRAM ERRCHK)
//GO.FT05F001 DD *

      ERRCHK card inputs (unit 5)

//GO.FT06F001 DD SYSOUT=A                                (LIST OF ERRORS)
//GO.FT01F001 DD DSN=NVS01.DMAF.BACKUP.DATA,DISP=SHR      (INPUT FILE)
//GO.FT02F001 DD DSN=NVS01.DMAF1.DATA,DISP=SHR            (OUTPUT FILE)
```

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2.2.3 INPUTS

Card inputs are made using unit 5. The format for these cards is presented in Section 2.2.3.1.

Unit 5 - Card input which provides run identification information

The following additional unit is used to input information from a disk file created by the program PRELIM:

Unit 1 - Depot Maintenance Assignment File, Version 0
(DMAF-0)

The format for this file is given in Section 2.2.3.2.

2.2.3.1 Unit 5 - Card Input

Only one card is input to ERRCHK. Its format is:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
COMMNT(1-4)	Run identification	1-16	4A4

2.2.3.2 Unit 1 - Depot Maintenance Assignment File, Version 0 (DMAF-0)

DMAF-0 contains information describing all depot maintenance ship-availabilities scheduled for yard-work at both Navy and privately owned shipyards during the selected five-fiscal-year period. Depot maintenance availabilities are those availabilities with a type of work other than Fitting Out (FO), Post Shakedown (PS), or New Construction (NC).

Each semi-annual period of a fiscal year within which an availability falls, corresponds to a record on DMAF-0. Note that there may be more than one DMAF record for any particular availability.

The DMAF-0 file is sorted in ascending order by the following parameters:

- Ship type
- Hull number
- Availability start date (year, month, day)
- Sequence number
- Fiscal year (this record)
- Period (this record)

The format of each record in the DMAF-0 file is as follows:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
Y	Shipyard	1-5	A5
ISHIP	Ship type	6-9	A4
IHULL	Hull number	10-13	I4
ISEQ	Sequence number	14-17	I4
CONT	Continuation indicator	18	A1
AVAIL	Type work	19-21	A3
ISDATE(1-3)	Availability start date (month, day, year)	22-27	3I2
IEDATE(1-3)	Availability end date (month, day, year)	28-33	3I2
A(1-8)	Sector, mandays, matrix numbers, etc.	34-63	7A4,A2
IPCTA	Percent alterations	64-66	I3
B(1-3)	Labor distribution histogram number, sort key, etc.	67-76	2A4,A2

2.2.4 OUTPUTS

The following unit is used by ERRCHK for generating hardcopy output:

Unit 6 - Error messages

Section 2.2.7 presents a sample of this output.

ERRCHK uses the following additional unit to store information on disk for use by subsequent programs:

Unit 2 - Depot Maintenance Assignment File, Version 1
(DMAF-1)

The format for this file is given in Section 2.2.4.1.

2.2.4.1 Unit 2 - Depot Maintenance Assignment File, Version 1 (DMAF-1)

The format for each record is as follows:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
Y	Shipyard	1-5	A5
ISHIP	Ship type	6-9	A4
IHULL	Hull number	10-13	I4
ISEQ	Sequence number	14-17	I4
CONT	Continuation indicator	18	A1
AVAIL	Type work	19-21	A3
IDATE(1)	Availability start date (month, day, year)	22-27	I6
IDATE(2)	Availability end date (month, day, year)	28-33	I6
A(1-8)	Sector, mandays, matrix number, etc.	34-63	7A4,A2
IPCTA	Percent alterations	64-66	I3
B(1-3)	Labor distribution histogram number, sort key, etc.	67-76	2A4,A2
IREC	Record number	85-90	I6

A general description of this file is presented in Section 2.2.3.2.

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2.2.5 PROGRAM LISTING

```

C*****PROGRAM ERRCHK(INPUT,OUTPUT,TAPE5=INPUT,TAPE6=OUTPUT,TAPE1,TAPE2) ***** 10
C                                                                                   ERRC 20
C                                                                                   ERRC 30
C      ERRCHK (ERROR CHECK) READS EACH DMAF RECORD AND PERFORMS THE          ERRC 40
C FOLLOWING FUNCTIONS:                                                         ERRC 50
C                                                                                   ERRC 60
C      -RE-NUMBERS THE RECORDS.                                               ERRC 70
C      -DETERMINES THE PROPER VALUE OF THE CONTINUATION INDICATOR AND          ERRC 80
C      RESETS IT, IF NECESSARY.                                               ERRC 90
C      -CHECKS SEQUENCE NUMBER AND PERCENT ALT. FOR NON-UNOS WORK AND          ERRC 100
C      CALLS SUBROUTINE ERROR TO PRINT A MESSAGE IF AN ERROR IS FOUND.        ERRC 110
C                                                                                   ERRC 120
C ERRCHK ASSUMES THAT THE DMAF IS SORTED FIRST BY SHIP TYPE, THEN HULL        ERRC 130
C NUMBER, THEN AVAILABILITY START DATE AND FINALLY BY FY AND PERIOD.          ERRC 140
C                                                                                   ERRC 150
C THE FOLLOWING UNITS ARE USED BY THE PROGRAM:                               ERRC 160
C                                                                                   ERRC 170
C      UNIT 1 - INPUT - DEPOT MAINTENANCE ASSIGNMENT FILE (DMAF),              ERRC 180
C                      VERSION 0                                              ERRC 190
C      UNIT 2 - OUTPUT - DMAF, VERSION 1 (WITH REVISED RECORD NUMBERS AND     ERRC 200
C                      CORRECTED CONTINUATION INDICATORS)                    ERRC 210
C      UNIT 5 - INPUT - CARD INPUT GIVING RUN IDENT.                         ERRC 220
C      UNIT 6 - OUTPUT - LIST OF ERRORS ENCOUNTERED IN SEQUENCE NUMBER         ERRC 230
C                      OR PERCENT ALT.                                       ERRC 240
C                                                                                   ERRC 250
C PROGRAMMED BY JAY MANDELBAUM, NAVAL SEA SYSTEMS COMMAND (CODE 0711),        ERRC 260
C AUGUST 1975.                                                                ERRC 270
C                                                                                   ERRC 280
C REVISED BY LINDA L. LAMATRICE, NAVAL SHIP RESEARCH AND DEVELOPMENT         ERRC 290
C CENTER (CODE 186), JULY 1976.                                              ERRC 300
C                                                                                   ERRC 310
C -----                                                                    ERRC 320
C                                                                                   ERRC 330
C      DIMENSION IDATE(2),IDATEP(2),A(8),B(3)                                ERRC 340
C                                                                                   ERRC 350
C      COMMON /MSSG/COMMNT(4),ISHIP,IHULL,ISEQ, AVAIL,ISDATE(3),              ERRC 360
C              IEDATE(3),IREC,IPCTA                                          ERRC 370
C                                                                                   ERRC 380
C      REAL*8 Y                                                                ***** 390
C                                                                                   ERRC 400
C      REAL ISHIP,ISHIPP,NC,MAP,NRT                                          ERRC 410
C                                                                                   ERRC 420
C      DATA NC/3HNC /,FO/2HF0/, PS/2HPS/, PSA/3HPSA/, RNC/3HRNC/,           ERRC 430
C      . UNSW/4HUNSW/, UNOW/4HUNOW/, MAP/3HMAP/, C/1HC/, RA/2HRA/,           ERRC 440
C      . UNOS/4HUNOS/, NRT/3HNRT/                                           ERRC 450
C                                                                                   ERRC 460
C      DATA BLANK/1H /,AST/1H*/                                           ERRC 470
C                                                                                   ERRC 480
C -----                                                                    ERRC 490
C                                                                                   ERRC 500
C      READ HEADING INFORMATION. -----                                     ERRC 510
C      READ (5,90) COMMNT                                                    ERRC 520
C      90 FORMAT (4A4)                                                        ERRC 530
C                                                                                   ERRC 540
C -----INITIALIZE AND INCREMENT RECORD NUMBER. -----                   ERRC 550

```

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IREC=0	ERRC 560
C	ERRC 570
C-----INITIALIZE PREVIOUS SHIP VARIABLES. -----	ERRC 580
ISHIPP=BLANK	ERRC 590
IHULLP=0	ERRC 600
AVAILP=BLANK	ERRC 610
IDATEP(1)=0	ERRC 620
IDATEP(2)=0	ERRC 630
100 IREC=IREC+1	ERRC 640
C	ERRC 650
C-----READ RECORD AND WRITE IT WITH RECORD NUMBER-----	ERRC 660
C*****READ (1,105) Y,ISHIP,IHULL,ISEQ,CONT,AVAIL,IDATE,ISDATE,	**** 670
READ (1,105,END=200) Y,ISHIP,IHULL,ISEQ,CONT,AVAIL,IDATE,ISDATE,	**** 680
. IDATE,A,IPCTA,B	ERRC 690
105 FORMAT (A5,A4,2I4,A1,A3,2I6,T22,6I2,7A4,A2,I3,2A4,A2)	ERRC 700
C*****IF (EOF(1).NE.0.0) GO TO 200	**** 710
C	ERRC 720
C-----DETERMINE PROPER VALUE OF CONTINUATION INDICATOR-----	ERRC 730
CONT=AST	ERRC 740
IF (ISHIP.EQ.ISHIPP .AND. IHULL.EQ.IHULLP .AND. IDATE(1).EQ.	ERRC 750
. IDATEP(1) .AND. IDATE(2).EQ.IDATEP(2) .AND. AVAIL.EQ.AVAILP)	ERRC 760
. GO TO 110	ERRC 770
CONT=BLANK	ERRC 780
ISHIPP=ISHIP	ERRC 790
IHULLP=IHULL	ERRC 800
IDATEP(1)=IDATE(1)	ERRC 810
IDATEP(2)=IDATE(2)	ERRC 820
AVAILP=AVAIL	ERRC 830
110 WRITE (2,120) Y,ISHIP,IHULL,ISEQ,CONT,AVAIL,IDATE,A,IPCTA,	ERRC 840
. B,IREC	ERRC 850
120 FORMAT (A5,A4,2I4,A1,A3,2I6, 7A4,A2,I3,2A4,A2,T85,I6)	ERRC 860
C	ERRC 870
C-----DO NOT ERROR CHECK UNOS WORK-----	ERRC 880
IF (ISHIP.EQ.UNOW.OR.ISHIP.EQ.UNSW.OR.ISHIP.EQ.UNOS.OR.	ERRC 890
A ISHIP.EQ.MAP) GO TO 100	ERRC 900
C	ERRC 910
C-----FLAG INVALID UNSEQUENCED WORK-----	ERRC 920
IF (ISEQ.LE.0) CALL ERROR(1)	ERRC 930
C	ERRC 940
C-----WRITE ERROR IF ALT PERCENT NEGATIVE OR LARGER THAN 100-----	ERRC 950
IF (IPCTA.LT.0) CALL ERROR(3)	ERRC 960
IF (IPCTA.GT.100) CALL ERROR(4)	ERRC 970
C	ERRC 980
C-----GO TO 1 IF ALT PERCENT MAY BE ZERO-----	ERRC 990
IF (AVAIL.EQ.NRT .OR. AVAIL.EQ.C .OR. AVAIL.EQ.RA .OR.	ERRC1000
. AVAIL.EQ.NC .OR. AVAIL.EQ.FO .OR. AVAIL.EQ.PS .OR.	ERRC1010
B AVAIL.EQ.PSA .OR. AVAIL.EQ.RNC) GO TO 100	ERRC1020
C	ERRC1030
C-----FLAG ZERO PERCENT ALT-----	ERRC1040
IF (IPCTA.EQ.0) CALL ERROR(2)	ERRC1050
GO TO 100	ERRC1060
C	ERRC1070
200 STOP	ERRC1080
END	ERRC1090

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```

SUBROUTINE ERROR(IFLAG)
C
C SUBROUTINE ERROR PRINTS A MESSAGE FOR EACH DMAF RECORD WITH AN
C ERROR IN SEQUENCE NUMBER OR PERCENT ALT. THE MESSAGE PRINTED DEPENDS
C ON THE VALUE OF IFLAG:
C
C IFLAG MESSAGE
C -----
C 1 INVALID SEQUENCE NUMBER
C 2 NO PERCENT ALT.
C 3 PERCENT ALT. LESS THAN ZERO
C 4 PERCENT ALT. GREATER THAN 100
C
C REAL ISHIP
C
C COMMON /MSSG/COMMNT(4),ISHIP,IHULL,ISEQ, AVAIL,ISDATE(3),
C IEDATE(3),IREC,IPCTA
C
C DATA IPAGE/0/,LINE/60/
C-----
C BEGIN NEW PAGE IF LINE COUNT EXCEEDS 55. -----
C IF (LINE.LE.55) GO TO 110
C IPAGE=IPAGE+1
C WRITE (6,100) IPAGE,COMMNT
100 FORMAT (1H1/5X,15HREPORT DM-60-01,50X,4HPAGE,I3/5X,4A4/
C 5X,15HPROGRAM: ERRCHK////
C 19X,38HPERCENT ALT. AND SEQUENCE NUMBER CHECK/19X,38(1H-1)///
C 13X,54H S H I P TW SEQ AVAILABILITY DATES (ALT ERROR/ERRO
C 13X,54H----- /ERRO
C 1
C LINE=14
C
C WRITE APPROPRIATE ERROR MESSAGE. -----
110 LINE=LINE+1
C GO TO (120,140,160,180), IFLAG
C
C-----IFLAG=1-----
120 WRITE (6,130) IREC,ISHIP,IHULL, AVAIL,ISEQ,ISDATE,IEDATE,IPCTA
130 FORMAT (3X,I6,1H.,3X,A4,I5,3X,A3,I5,I4,2(1H/,I2),2H -,I3,2(1H/,I2)
C 15,3X,23HINVALID SEQUENCE NUMBER)
C RETURN
C
C-----IFLAG=2-----
140 WRITE (6,150) IREC,ISHIP,IHULL, AVAIL,ISEQ,ISDATE,IEDATE,IPCTA
150 FORMAT (3X,I6,1H.,3X,A4,I5,3X,A3,I5,I4,2(1H/,I2),2H -,I3,2(1H/,I2)
C 15,3X,15HNO PERCENT ALT.)
C RETURN
C
C-----IFLAG=3-----
160 WRITE (6,170) IREC,ISHIP,IHULL, AVAIL,ISEQ,ISDATE,IEDATE,IPCTA
170 FORMAT (3X,I6,1H.,3X,A4,I5,3X,A3,I5,I4,2(1H/,I2),2H -,I3,2(1H/,I2)
C 15,3X,27HPERCENT ALT. LESS THAN ZERO)
C RETURN
C
C-----IFLAG=4-----

```

```

ERRO 10
ERRO 20
ERRO 30
ERRO 40
ERRO 50
ERRO 60
ERRO 70
ERRO 80
ERRO 90
ERRO 100
ERRO 110
ERRO 120
ERRO 130
ERRO 140
ERRO 150
ERRO 160
ERRO 170
ERRO 180
ERRO 190
ERRO 200
ERRO 210
ERRO 220
ERRO 230
ERRO 240
ERRO 250
ERRO 260
ERRO 270
ERRO 280
ERRO 290
ERRO 300
ERRO 310
ERRO 320
ERRO 330
ERRO 340
ERRO 350
ERRO 360
ERRO 370
ERRO 380
ERRO 390
ERRO 400
ERRO 410
ERRO 420
ERRO 430
ERRO 440
ERRO 450
ERRO 460
ERRO 470
ERRO 480
ERRO 490
ERRO 500
ERRO 510
ERRO 520
ERRO 530
ERRO 540
ERRO 550
ERRO 560
ERRO 570
ERRO 580
ERRO 590

```



```

180 WRITE (6,190) IREC,ISHIP,IHULL, AVAIL,ISEQ,ISDATE,IEDATE,IPCTA ERRO 600
190 FORMAT (3X,I6,1H.,3X,A4,I5,3X,A3,I5,I4,2(1H/,I2),2H -,I3,2(1H/,I2)ERRO 610
., I5,3X,29HPERCENT ALT. GREATER THAN 100) ERRO 620
RETURN ERRO 630
END ERRO 640

```

2.2.6 GLOSSARY

COMMON VARIABLES

Common Block /MSSG/

AVAIL	Type of work for a particular ship-availability.
COMMNT(4)	Run identification information.
IEDATE(3)	Availability end date where the subscript refers to (1) month, (2) day, and (3) year.
IHULL	Ship's hull number.
IPCTA	The percent of production shop productive (PSP) mandays for alterations (for an availability).
IREC	Record number of current DMAF-1 record.
ISDATE(3)	Availability start date where the subscript refers to (1) month, (2) day, and (3) year.
ISEQ	Sequence number of an availability.
ISHIP	Ship type for an availability.

LOCAL VARIABLES

Main Program

A(8)	An array used to read and write a block of information from DMAF.
AST	Contains the character "*".
AVAILP	Type work for the previous availability.
B(3)	An array used to read and write a block of information from DMAF.
BLANK	A one-character blank space.
C	Contains the character "C".
CONT	Continuation indicator. Contains a blank for the first DMAF record for a ship-availability; contains an asterisk ("*") otherwise.
FO	Contains the characters "FO".
IDATE(2)	Availability start date and end date.
IDATEP(2)	Previous availability's start and end dates.
IHULLP	Hull number of the previous availability.
ISHIPP	Ship type of the previous availability.
MAP	Contains the characters "MAP".
NC	Contains the characters "NC".
NRT	Contains the characters "NRT".
PS	Contains the characters "PS".
PSA	Contains the characters "PSA".
RA	Contains the characters "RA".
RNC	Contains the characters "RNC".
UNOS	Contains the characters "UNOS".
UNOW	Contains the characters "UNOW".
UNSW	Contains the characters "UNSW".
Y	Shipyard for the current availability.

2.2.7 SAMPLE RUN

The DMAF-0 file created by the sample run of PRELIM formed the basis for the sample run of ERRCHK. A listing of this file is presented in Section 2.1.7 (unit 7). It is the input to the sort routine which precedes ERRCHK. The sorted version of DMAF-0 is listed in this section as are the other inputs to, and outputs from, ERRCHK.

Unit 5 (Input) - Input Cards

03/77-SAMPLE

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Unit 1 (Input) - Depot Maintenance Assignment File, Version 0 (Sorted)

PUGETCGN	9	30 C	4 179 4	182AANNW792	82471	739000	0 9
PUGETCGN	9	30 *C	4 179 4	182AANNW821	163508	739000	0 9
PUGETCGN	9	30 *C	4 179 4	182AANNW812	164152	739000	0 9
PUGETCGN	9	30 *C	4 179 4	182AANNW811	163582	739000	0 9
PUGETCGN	9	30 *C	4 179 4	182AANNW812	123009	739000	14 9
PUGETCGN	9	30 *C	4 179 4	182AANNW821	42207	739000	0 9
PUGETCGN	9	30 *C	4 179 4	182AANNW822	68	739000	0 9
PUGETCGN	25	24 RA	11579	31579AANNW791	30000	30000	20 1
PUGETCGN	25	30 RO	6 182 8	183AANNW822	75760	298507	1419
PUGETCGN	35	11 RA	11579	31579AANNW791	12000	12000	100 1
PUGETCGN	35	0 RO	6 181 8	182AANNW812	75760	298507	1419
PUGETCGN	35	0 *RO	6 181 8	182AANNW821	165233	298507	1419
PUGETCGN	35	0 *RO	6 181 8	182AANNW822	57513	298507	1419
PUGETCGN	36	4 RA	11579	41679AANNW791	43925	47204	24 1
PUGETCGN	36	4 *RA	11579	41679AANNW792	3278	47204	24 1
PUGETCGN	36	10 RO	41480	61481AANNW812	116368	278550	14 9
PUGETCGN	36	10 *RO	41480	61481AANNW811	144621	278550	14 9
PUGETCGN	36	10 *RO	41480	61481AANNW812	17560	278550	14 9
NORVACGN	37	4 RA	62178	82278AANNE782	20400	20400	39 1
NORVACGN	37	10 RO	1 281 3	582AANNE811	68369	278000	1413
NORVACGN	37	10 *RO	1 281 3	582AANNE812	161821	278000	1413
NORVACGN	37	10 *RO	1 281 3	582AANNE821	47808	278000	1413
NORVACGN	38	4 RA	8 37910	279AANNE792	11955	12000	32 1
NORVACGN	38	4 *RA	8 37910	279AANNE801	44	12000	32 1
NORVACGN	38	10 RO	7 182 9	283AANNE822	69808	278000	913
PUGETCGN	39	4 RA	71579	91579AANNW792	12000	12000	100 1
CHASNCGN	40	4 RA	5 182 7	182AANNE822	12000	12000	100 1
NWPACCV	41	35 RA	71078	91178CVAPW782	40000	40000	4917
PUGETCV	41	36 RA	111078	11179CVANW791	40000	40000	4817
LBECHCV	41	40 RO	101280101281	CVANW811	179097	396045	0 1
LBECHCV	41	40 *RO	101280101281	CVANW812	215472	396045	0 1
LBECHCV	41	40 *PO	101280101281	CVANW821	1474	396045	0 1
LBECHCV	43	40 RO	113077112978	CVANW781	124004	342067	1724
LBECHCV	43	40 *RO	113077112978	CVANW782	199985	342067	1724
LBECHCV	43	40 *RO	113077112978	CVANW791	18076	342067	1724
O 12 CV	43	41 RA	31080	71180CVAPW801	2096	10000	017
O 12 CV	43	41 *RA	31080	71180CVAPW802	7903	10000	017
O 06 CV	59	41 RA	11 378	12979CVAPE791	73258	73258	3917
NORVACV	59	42 RA	5 380	72980CVANE802	60000	60000	4317
NORVACV	59	43 RA	10 181 1	182CVANE821	60000	60000	4417
O 06 CV	60	53 RA	1 678 4	378CVAPE781	86977	89360	4017
O 06 CV	60	53 *RA	1 678 4	378CVAPE782	2382	89360	4017
NORVACV	60	60 RO	4207912	179CVANE792	194944	240000	4723
NORVACV	60	60 *RO	4207912	179CVANE801	45055	240000	4723
O 06 CV	60	61 RA	7 18210	182CVAPE822	59484	60000	4217
PUGETCV	61	50 RO	21577	21578CVANW781	111606	443300	3824
O 11 CV	61	51 RA	2 180 5	180CVAPW801	44312	60000	42 1
O 11 CV	61	51 *RA	2 180 5	180CVAPW802	15687	60000	42 1
O 11 CV	61	52 RA	9 18112	181CVAPW812	14731	60000	46 1
O 11 CV	61	52 *RA	9 18112	181CVAPW821	45268	60000	46 1
NORVACV	62	40 RO	112177101978	CVANE781	140469	346352	4123
NORVACV	62	40 *RO	112177101978	CVANE782	199596	346352	4123
NORVACV	62	40 *RO	112177101978	CVANE791	6286	346352	4123
NORVACV	62	41 RA	9 179112679	CVANE792	29389	69170	4217
NORVACV	62	41 *RA	9 179112679	CVANE801	39780	69170	4217
O 11 CV	62	42 RA	1 281 4	181CVAPW811	59925	60000	41 1
O 11 CV	62	42 *RA	1 281 4	181CVAPW812	74	60000	41 1
O 11 CV	62	43 RA	5 182 8	182CVAPW822	60000	60000	41 1

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Unit 6 (Output) - ERRCHK Printed Output

PAGE 1

REPORT DM-60-01
03/77-SAMPLE
PROGRAM: ERRCHK

2

PERCENT ALT. AND SEQUENCE NUMBER CHECK

	S	H	I	P	TW	SEQ	AVAILABILITY DATES	ALT	ERROR	INVALID SEQUENCE NUMBER
11.	CGN	35			RO	0	6/ 1/81 - 8/ 1/82	14		INVALID SEQUENCE NUMBER
12.	CGN	35			RO	0	6/ 1/81 - 8/ 1/82	14		INVALID SEQUENCE NUMBER
13.	CGN	35			RO	0	6/ 1/81 - 8/ 1/82	14		INVALID SEQUENCE NUMBER
30.	CV	41			RO	40	10/12/80 - 10/12/81	0		NO PERCENT ALT.
31.	CV	41			RO	40	10/12/80 - 10/12/81	0		NO PERCENT ALT.
32.	CV	41			RO	40	10/12/80 - 10/12/81	0		NO PERCENT ALT.

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Unit 2 (Output) - Depot Maintenance Assignment File, Version 1

PUGETCGN	9	30	C	40179	40182AANNM792	82471	739000	0	9	1
PUGETCGN	9	30	C	40179	40182AANNM801	163508	739000	0	9	2
PUGETCGN	9	30	C	40179	40182AANNM802	164152	739000	0	9	3
PUGETCGN	9	30	C	40179	40182AANNM811	163582	739000	0	9	4
PUGETCGN	9	30	C	40179	40182AANNM812	123009	739000	14	5	5
PUGETCGN	9	30	C	40179	40182AANNM821	42207	739000	0	9	6
PUGETCGN	9	30	C	40179	40182AANNM822	68	739000	0	5	7
PUGETCGN	25	24	RA	11579	31579AANNM791	30000	30000	20	1	8
PUGETCGN	25	30	RO	60182	80183AANNM822	75760	298507	1419		9
PUGETCGN	35	11	RA	11579	31579AANNM791	12000	12000	100	1	10
PUGETCGN	35	0	RO	60181	80182AANNM812	75760	298507	1419		11
PUGETCGN	35	0	RO	60181	80182AANNM821	165233	298507	1415		12
PUGETCGN	35	0	RO	60181	80182AANNM822	57513	298507	1419		13
PUGETCGN	36	4	RA	11579	41679AANNM791	48925	47204	24	1	14
PUGETCGN	36	4	RA	11579	41679AANNM792	3278	47204	24	1	15
PUGETCGN	36	10	RO	41480	61481AANNM802	116368	278550	14	9	16
PUGETCGN	36	10	RO	41480	61481AANNM811	144621	278550	14	9	17
PUGETCGN	36	10	RO	41480	61481AANNM812	17560	278550	14	9	18
NORVACGN	37	4	RA	62178	82278AANNM782	20400	20400	39	:	19
NORVACGN	37	10	RO	10281	30582AANNM811	68369	278000	1413		20
NORVACGN	37	10	RO	10281	30582AANNM812	161821	278000	1413		21
NORVACGN	37	10	RO	10281	30582AANNM821	47808	278000	1413		22
NORVACGN	38	4	RA	80379	100279AANNM792	11955	12000	32	1	23
NORVACGN	38	4	RA	80379	100279AANNM801	44	12000	32	1	24
NORVACGN	38	10	RO	70182	90283AANNM822	69808	278000	913		25
PUGETCGN	39	4	RA	71579	91579AANNM792	12000	12000	100	1	26
CHASNCGN	40	4	RA	50182	70182AANNM822	12000	12000	100	1	27
NWPACCV	41	35	RA	71078	91178CVAPW782	40000	40000	4917		28
PUGETCV	41	36	RA	111078	11179CVAPW791	40000	40000	4817		29
LBECMCV	41	40	RO	101280	101281CVAPW811	179097	396045	0	1	30
LBECMCV	41	40	RO	101280	101281CVAPW812	215472	396045	0	1	31
LBECMCV	41	40	RO	101280	101281CVAPW821	1474	396045	0	1	32
LBECMCV	43	40	RO	113077	112978CVAPW781	124004	342067	1724		33
LBECMCV	43	40	RO	113077	112978CVAPW782	199985	342067	1724		34
LBECMCV	43	40	RO	113077	112978CVAPW791	18076	342067	1724		35
D 12 CV	43	41	RA	31080	71180CVAPW801	2096	10000	017		36
D 12 CV	43	41	RA	31080	71180CVAPW802	7903	10000	017		37
D 06 CV	59	41	RA	110378	12979CVAPW791	73258	73258	3917		38
NORVACV	59	42	RA	50380	72980CVAPW802	60000	60000	4317		39
NORVACV	59	43	RA	100181	10182CVAPW821	60000	60000	4417		40
D 06 CV	60	53	RA	10678	40378CVAPW781	86977	89360	4017		41
D 06 CV	60	53	RA	10678	40378CVAPW782	2382	89360	4017		42
NORVACV	60	60	RO	42079	120179CVAPW792	194944	240000	4723		43
NORVACV	60	60	RO	42079	120179CVAPW801	45055	240000	4723		44
D 06 CV	60	61	RA	70182	100182CVAPW822	59484	60000	4217		45
PUGETCV	61	50	RO	21577	21578CVAPW781	111606	443300	3824		46
D 11 CV	61	51	RA	20180	50180CVAPW801	44312	60000	42	1	47
D 11 CV	61	51	RA	20180	50180CVAPW802	15687	60000	42	1	48
D 11 CV	61	52	RA	90181	120181CVAPW812	14731	60000	46	1	49
D 11 CV	61	52	RA	90181	120181CVAPW821	45268	60000	46	1	50
NORVACV	62	40	RO	112177	101978CVAPW781	140469	346352	4123		51
NORVACV	62	40	RO	112177	101978CVAPW782	199596	346352	4123		52
NORVACV	62	40	RO	112177	101978CVAPW791	6286	346352	4123		53
NORVACV	62	41	RA	90179	112679CVAPW792	29389	69170	4217		54
NORVACV	62	41	RA	90179	112679CVAPW801	39780	69170	4217		55
D 11 CV	62	42	RA	10281	40181CVAPW811	59925	60000	41	1	56
D 11 CV	62	42	RA	10281	40181CVAPW812	74	60000	41	1	57
D 11 CV	62	43	RA	50182	80182CVAPW822	60000	60000	41	1	58

2.3 PROGRAM UPDEP

2.3.1 DESCRIPTION

The program UPDEP is used to alter the Depot Maintenance Assignment File (DMAF). The updating process may consist of adding records, deleting records, or replacing one or more data items or entire records. In addition to these operations, UPDEP resequences the record numbers on the file.

Update cards are used to specify which record is to be revised as well as which fields are to be changed. Each update command consists of two or more cards: an instruction card, and a data card containing the replacement values. Deletions require only one card. The instruction names and the commands that they signify are as follows:

- *NSRT - used for inserting one or more records
- *DELT - used for deleting one or more records
- *REPL - used for replacing one or more values
or an entire record

The insertion command requires the record number after which records are to be inserted. Any number of records may be inserted. The terminator is the next instruction card.

The deletion command requires the first and last record number of the sequence to be deleted. In the case of a single deletion, the last record number may be omitted.

To replace one or more values or an entire record, the number of the record that is being changed is required. The replace command may be used to replace the same value or values in a series of records. It will then require the first and last record number of the sequence on the instruction card.

All update instruction cards must be in ascending order by record number. A replace command cannot reference a record previously deleted.

The data card containing the replacement values consists of a card image of the record to be updated. If a field on the update card is

blank, the corresponding field on the new DMAF is not changed. If a field on the update card is non-blank, the information in the corresponding field of the DMAF is replaced with that on the update card. If the first character of a field on the update card is a "\$" and the remainder of the field is blank, the corresponding field on the new DMAF is blank filled.

An update deck is terminated with a "99999" card, and the new DMAF is automatically resequenced by ones. The DMAF to be changed or updated resides on unit 8, and the new or updated DMAF is written on unit 9. Update control cards are assigned to unit 5 and error messages are written on unit 6.

2.3.2 RUN SET-UP

The following set-up is used to run the UPDEP program on the IBM 360/370 computer:

```
//NVSUPDEP JOB (XXXXXXXXXX,XXXXX),USER,CLASS=C,TIME=(,20),MSGLEVEL=1
//JOBLIB DD DSN=NVS01.DEPOT.LIB,DISP=SHR
// EXEC PGM=UPDEP
//GO.FT05F001 DD *
```

UPDEP card inputs (unit 5)

```
//GO.FT06F001 DD SYSOUT=A (ERROR MESSAGES)
//GO.FT08F001 DD DSN=NVS01.DMAF1.DATA,DISP=SHR (INPUT FILE)
//GO.FT09F001 DD DSN=NVS01.DMAF.BACKUP.DATA,DISP=SHR (OUTPUT FILE)

// EXEC PGM=IEBGENER (COPY DMAF FROM BACKUP)
//SYSIN DD DUMMY
//SYSPRINT DD SYSOUT=A
//SYSUT1 DD DSN=NVS01.DMAF.BACKUP.DATA,DISP=SHR
//SYSUT2 DD DSN=NVS01.DMAF1.DATA,DISP=SHR
```


2.3.3 INPUTS

Card inputs to UPDEP are made using unit 5. The format for these cards is given in Section 2.3.3.1.

Unit 5 - Card inputs which (1) determine the type of change to be made and identify the record number, (2) give replacement values, (3) terminate the input data.

The following additional unit is used to input information from a disk file:

Unit 8 - Depot Maintenance Assignment File (DMAF)

The format for this file is given in Section 2.3.3.2.

2.3.3.1 Unit 5 - Card Inputs

There are two types of update cards: a type A card which describes the instruction and gives record numbers, and a type B card which contains replacement data. An Update Deck Terminator card follows the last type B card. The format for the type A update card is as follows:

Type A Update Card

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IDENT	Identification instruction	1-5	A5
IREC1	First record number	10-13	I4
IREC2	Last record number	14-17	I4

The format for second of the pair of cards in the update deck is as follows:

Type B Update Card

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
UFIELD(1)	Yard	1-5	A5
UFIELD(2)	Ship type	6-9	A4
UFIELD(3)	Hull number	10-13	A4
UFIELD(4)	Sequence Number	14-17	A4
UFIELD(5)	Continuation indicator	18	A1
UFIELD(6)	Type work	19-21	A3
UFIELD(7)	Availability start date (mo/dy/yr)	22-27	A6
UFIELD(8)	Availability end date (mo/dy/yr)	28-33	A6
UFIELD(9)	Specialization category	34-36	A3
UFIELD(10)	Sector	37-38	A2
UFIELD(11)	Fiscal year (this record)	39-40	A2
UFIELD(12)	Period (this year)	41	A1
UFIELD(13)	PSP mandays this period	42-48	A7

Type B Update Card (Continued)

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
UFIELD(14)	Total PSP mandays	49-55	A7
UFIELD(15)	Repair matrix number	56-59	A4
UFIELD(16)	Alterations matrix number	60-63	A4
UFIELD(17)	Percent of PSP mandays for alterations	64-66	A3
UFIELD(18)	Labor distribution histogram number	67-68	A2
UFIELD(19)	Sort key	74-76	A3

The format for the terminator card (the last card of the update deck) is as follows:

Update Deck Terminator Card

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
ISTOP	Terminator (Must contain the characters "99999".)	1-5	A5

2.3.3.2 Unit 8 - Depot Maintenance Assignment File (DMAF)

The format for the Depot Maintenance Assignment File (DMAF) is as follows:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
DFIELD(1)	Yard	1-5	A5
DFIELD(2)	Ship type	6-9	A4
DFIELD(3)	Hull number	10-13	A4
DFIELD(4)	Sequence Number	14-17	A4
DFIELD(5)	Continuation indicator	18	A1
DFIELD(6)	Type work	19-21	A3
DFIELD(7)	Availability start date (mo/dy/yr)	22-27	A6
DFIELD(8)	Availability end date (mo/dy/yr)	28-33	A6
DFIELD(9)	Specialization category	34-36	A3
DFIELD(10)	Sector	37-38	A2
DFIELD(11)	Fiscal year (this record)	39-40	A2
DFIELD(12)	Period (this year)	41	A1
DFIELD(13)	PSP mandays this period	42-48	A7
DFIELD(14)	Total PSP mandays	49-55	A7
DFIELD(15)	Repair matrix number	56-59	A4
DFIELD(16)	Alterations matrix number	60-63	A4
DFIELD(17)	Percent of PSP mandays for alterations	64-66	A3
DFIELD(18)	Labor distribution histogram number	67-68	A2
DFIELD(19)	Sort key	74-76	A3
IRECOR	Record number	85-90	I6

2.3.4 OUTPUTS

The following unit is used by UPDEP for generating hardcopy output:

Unit 6 - Error messages and summary of replacement record

Section 2.3.7 presents a sample of this output.

The following additional unit is used by UPDEP to store information on disk for use by subsequent programs:

Unit 9 - The Revised Depot Maintenance Assignment File

The format for this file is described in Section 2.3.4.1.

2.3.4.1 Unit 9 - Revised Depot Maintenance Assignment File (DMAF)

The format for each record is as follows:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
DFIELD(1)	Yard	1-5	A5
DFIELD(2)	Ship type	6-9	A4
DFIELD(3)	Hull number	10-13	A4
DFIELD(4)	Sequence Number	14-17	A4
DFIELD(5)	Continuation indicator	18	A1
DFIELD(6)	Type work	19-21	A3
DFIELD(7)	Availability start date (mo/dy/yr)	22-27	A6
DFIELD(8)	Availability end date (mo/dy/yr)	28-33	A6
DFIELD(9)	Specialization category	34-36	A3
DFIELD(10)	Sector	37-38	A2
DFIELD(11)	Fiscal year (this record)	39-40	A2
DFIELD(12)	Period (this year)	41	A1
DFIELD(13)	PSP mandays this period	42-48	A7
DFIELD(14)	Total PSP mandays	49-55	A7
DFIELD(15)	Repair matrix number	56-59	A4
DFIELD(16)	Alterations matrix number	60-63	A4
DFIELD(17)	Percent of PSP mandays for alterations	64-66	A3
DFIELD(18)	Labor distribution histogram number	67-68	A2
DFIELD(19)	Sort key	74-76	A3
IREC	Resequenced record number	85-90	A6

2.3.5 PROGRAM LISTING

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```

C*****PROGRAM UPDEP(INPUT,OUTPUT,TAPES=INPUT,TAPE6=OUTPUT,TAPE8,TAPE9) ***** 10
C   PROGRAM UPDEP IS A REVISION OF ONE WRITTEN BY DAN ALLEN          UPDP 20
C   ITS PURPOSE IS TO INSERT, DELETE OR REPLACE VALUES OR RECORDS  UPDP 30
C   ON THE DMAF FILE                                                UPDP 40
C   REVISED SEPT 1975      BY JEAN ST LAURENT                     UPDP 50
C                                                                    UPDP 60
C   UNIT 5 - INPUT - UPDATE CONTROL CARDS                          UPDP 70
C   UNIT 6 - OUTPUT - ERROR MESSAGES ARE WRITTEN ON THIS UNIT      UPDP 80
C   UNIT 8 - INPUT - OLD DMAF RESIDES ON THIS UNIT                 UPDP 90
C   UNIT 9 - OUTPUT - UPDATED DMAF IS WRITTEN ON THIS UNIT         UPDP 100
C                                                                    UPDP 110
C   EACH INSERT, DELETE AND REPLACE COMMAND CONSISTS OF TWO       UPDP 120
C   OR MORE CARDS                                                  UPDP 130
C   AN INSTRUCTION CARD - *NSRT, *DELT, *REPL WITH IDENTIFYING     UPDP 140
C   RECORD NUMBER AND A CARD IMAGE OF THE RECORD CONTAINING       UPDP 150
C   ONLY THE REPLACEMENT VALUE OR VALUES                         UPDP 160
C   IF THE 1ST CHARACTER OF A FIELD ON THE UPDATE CARD IS A $ SIGN, UPDP 170
C   THE CORRESPONDING FIELD ON THE DMAF IS BLANK FILLED           UPDP 180
C   THERE SHOULD BE ONE CARD FOR EACH ALTERED RECORD              UPDP 190
C                                                                    UPDP 200
C   TO INSERT A RECORD OR RECORDS - USE *NSRT AND THE RECORD NUMBER UPDP 210
C   AFTER WHICH RECORDS ARE TO BE INSERTED                        UPDP 220
C   TO DELETE A RECORD - USE *DELT WITH 1ST AND LAST RECORD NUMBER UPDP 230
C   OF THE SEQUENCE TO BE DELETED                                UPDP 240
C   TO REPLACE A RECORD - USE *REPL AND THE RECORD NUMBER THAT     UPDP 250
C   IT IS REPLACING                                               UPDP 260
C   AUTOMATIC RESEQUENCING IS DONE ON THE NEW DMAF                UPDP 270
C                                                                    UPDP 280
C   ALL UPDATE CONTROL CARDS MUST BE IN ASCENDING ORDER IN RECORD NO. UPDP 290
C                                                                    UPDP 300
C   THIS UPDATE DECK TERMINATES WITH A 99999 CARD                 UPDP 310
C                                                                    UPDP 320
C*****INTEGER UFIELD(19), DFIELD(19), FSTCHR(19) ***** 330
C   DIMENSION UFIELD(19), DFIELD(19), FSTCHR(19)                  ***** 340
C   REAL*8 ISIGN,IBLANK,INS,IDEL,IREF,ISTOP,DFIELD, UFIELD, FSTCHR ***** 350
C   REAL*8 IDENT                                                    ***** 360
C   DATA ISIGN /1H$, IBLANK/1H /, INS /5H*NSRT/, IDEL/5H*DELT/,  UPDP 370
C   1 IREF/5H*REPL/, ISTOP/5H99999/                                UPDP 380
C                                                                    UPDP 390
C   INITIAL CONDITIONS                                             UPDP 400
C   IREC = 0                                                         UPDP 410
C   DO 2 I = 1,19                                                  UPDP 420
C*****UFIELD(I) = 0                                               ***** 430
C*****FSTCHR(I) = 0                                               ***** 440
C*****DFIELD(I) = 0                                               ***** 450
C   UFIELD(I) = 0.0                                                ***** 460
C   FSTCHR = 0.0                                                  ***** 470
C   DFIELD(I) = 0.0                                                ***** 480
C   2 CONTINUE                                                    UPDP 490
C                                                                    UPDP 500
C   WRITE HEADING                                                  UPDP 510
C   WRITE(6,1010)                                                  UPDP 520
C                                                                    UPDP 530
C   READ UPDATE CARDS                                              UPDP 540
C   5 READ(5,1000) IDENT, IREC1, IREC2                            UPDP 550

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C	CHECK FOR LAST CARD	UPDP 560
	IF(IDENT.EQ.ISTOP) GO TO 85	UPDP 570
	IF(IDENT.EQ.INS) GO TO 15	UPDP 580
	IF(IDENT.EQ.IDEL) GO TO 20	UPDP 590
	IF(IDENT.EQ.IREP) GO TO 25	UPDP 600
	GO TO 80	UPDP 610
15	J = 1	UPDP 620
	GO TO 30	UPDP 630
20	J = 2	UPDP 640
	GO TO 20	UPDP 650
25	J = 3	UPDP 660
28	NREC = (IREC2 - IREC1) + 1	UPDP 670
	IF(IREC2.EQ.0) NREC = 1	UPDP 680
	IF(NREC.LE.0) GO TO 110	UPDP 690
	IF(J.EQ.2) GO TO 35	UPDP 700
C		UPDP 710
C	READ UPDATE INFORMATION	UPDP 720
	30 READ(5,1001) (UFIELD(I),I=1,19), (FSTCHR(N),N=1,19)	UPDP 730
C	READ OLD DMF	UPDP 740
C**35	READ(8,1002) (DFIELD(I),I=1,19), IRECOR	**** 750
	35 READ(8,1002,END=90) (DFIELD(I),I=1,19), IRECOR	**** 760
C	CHECK FOR EOF	UPDP 770
C****	IF (EOF(8) .NE. 0) GO TO 90	**** 780
	IF(IRECOR - IREC1) 75,40,80	JPDP 790
C		JPDP 800
	40 GO TO (45, 55, 65), J	UPDP 810
C		UPDP 820
C	INSERT NEW RECORDS (J=1)	UPDP 830
	45 IREC = IREC + 1	UPDP 840
	WRITE(9,1002) (DFIELD(I),I=1,19), IREC	UPDP 850
48	DO 50 I = 1, 19	UPDP 860
	IF(UFIELD(I) .EQ. IBLANK) GO TO 50	JPDP 870
	DFIELD(I) = UFIELD(I)	UPDP 880
	IF(FSTCHR(I) .EQ. ISIGN) DFIELD(I) = IBLANK	UPDP 890
50	CONTINUE	UPDP 900
	IREC = IREC + 1	UPDP 910
	WRITE(9,1002) (DFIELD(I),I=1,19), IREC	UPDP 920
	WRITE(6,1007) (DFIELD(I),I=1,19), IREC	UPDP 930
	READ(5,1001) (UFIELD(I),I=1,19), (FSTCHR(N),N=1,19)	UPDP 940
	IF(UFIELD(1).EQ.ISTOP) GO TO 85	UPDP 950
	IF(UFIELD(1).EQ.INS .OR. UFIELD(1).EQ.IDEL .OR. UFIELD(1).EQ.IREP)	UPDP 960
1	GO TO 52	UPDP 970
	GO TO 48	UPDP 980
52	BACKSPACE 5	JPDP 990
	GO TO 5	UPDP1000
C		UPDP1010
C	DELETE RECORDS BY READING AND THROWING AWAY (J=2)	UPDP1020
	55 IF(NREC.EQ.1) GO TO 5	UPDP1030
	DO 60 K = 2, NREC	UPDP1040
C****	READ(8,1002) (DFIELD(I),I=1,19), IRECOR	****1050
	READ(8,1002,END=90) (DFIELD(I),I=1,19), IRECOR	****1060
C****	IF(EOF(8) .NE. 0) GO TO 90	****1070
60	CONTINUE	UPDP1080
	GO TO 5	UPDP1090
C		UPDP1100
C	REPLACE VALUES OR ENTIRE RECORDS (J=3)	UPDP1110
	65 DO 72 L = 1,NREC	UPDP1120
	WRITE(6,1008) (DFIELD(I),I=1,19), IRECOR	UPDP1130
	DO 70 I=1,19	UPDP1140
	IF(UFIELD(I) .EQ. IBLANK) GO TO 70	UPDP1150

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```

C      DFIELD(I) = UFIELD(I)
      IF 8 IN FIELD, BLANK FILL
      IF(FSTCHR(I) .EQ. ISIGN) DFIELD(I) = IBLANK
70 CONTINUE
      IREC = IREC + 1
      WRITE(9,1002) (DFIELD(I),I=1,19), IREC
      WRITE(6,1009) (DFIELD(I),I=1,19), IREC, IREC
      IF(L.EQ.NREC) GO TO 5
C*****READ(8,1002) (DFIELD(I),I=1,19), IREC
      READ(8,1002,END=90) (DFIELD(I),I=1,19), IREC
C      CHECK FOR EOF
C*****IF (EOF(8) .NE. 0) GO TO 90
72 CONTINUE
      GO TO 5
C      COPY OLD DHAFF TO NEW FILE UNCHANGED
75 IREC = IREC + 1
      WRITE(9,1002) (DFIELD(I),I=1,19), IREC
      GO TO 35
C      ERROR PRINTOUT
80 WRITE(6,1003) (UFIELD(I),I=1,19), IREC1
      IREC = IREC + 1
      WRITE(9,1002) (DFIELD(I),I=1,19), IREC
      GO TO 5
C
C      TERMINAL CARD OF UPDATES - REMAINING RECORDS ARE COPIED
C**85 READ(8,1002) (DFIELD(I),I=1,19), IREC
C*****IF(EOF(8) .NE. 0) GO TO 100
      85 READ(8,1002,END=100) (DFIELD(I),I=1,19), IREC
      IREC = IREC + 1
      WRITE(9,1002) (DFIELD(I),I=1,19), IREC
      GO TO 85
110 WRITE(6,1006) IREC1, IREC2
      GO TO 5
90 WRITE(6,1004)
100 CONTINUE
      STOP
1000 FORMAT(A5,4X,2I4)
1001 FORMAT(A5,A4,2A4,A1,A3,2A6,A3,A2,A2,A1,2A7,2A4,A3,A2,5X,A3,4X,
1 T1,A1,T6,A1,T10,A1,T14,A1,T18,A1, T19,A1, T22,A1,T28,A1, T34,A1,
2 T37,A1,T39,A1, T41,A1,T42,A1,T49,A1,T56,A1, T60,A1,T64,A1,T67,
3 A1,T74,A1)
1002 FORMAT(A5,A4,2A4,A1,A3,2A6,A3,A2,A2,A1,2A7,2A4,A3,A2,5X,A3,8X,I6)
1003 FORMAT(1X,41H*** UPDATE ERROR - RECORD NOT IN FILE **/,
1 A5,A4,2A4,A1,A3,2A6,A3,A2,A2,A1,2A7,2A4,A3,A2,5X,A3,8X,I6)
1004 FORMAT(1X,54H*** UPDATE ERROR - EOF ENCOUNTERED ON OLD DATA SET **
1*)
1006 FORMAT(1X, 16HINPUT CARD ERROR, 2X, 8HREC 1 = , I4, 2X,
1 8HREC 2 = , I4)
1007 FORMAT(1H , 5X, A5, 2X, A4, 1X, 2(A4,2X), A1, A3, 2(2X,A6), 2X,
1 A3, 2(2X,A2), 2X, A1, 2(2X,A7), 2(2X,A4), 2X, A3, 2X, A2,
2 2X, A3, 10X, I6, 2X, 1HI )
1008 FORMAT(1H , 5X, A5, 2X, A4, 1X, 2(A4,2X), A1, A3, 2(2X,A6), 2X,
1 A3, 2(2X,A2), 2X, A1, 2(2X,A7), 2(2X,A4), 2X, A3, 2X, A2,
2 2X, A3, 2X, I6, 11X, 1HD )
1009 FORMAT(1H , 5X, A5, 2X, A4, 1X, 2(A4,2X), A1, A3, 2(2X,A6), 2X,
1 A3, 2(2X,A2), 2X, A1, 2(2X,A7), 2(2X,A4), 2X, A3, 2X, A2,
2 2X, A3, 2X, I6, 2X, I6, 2X, 1HI )
1010 FORMAT(1H1, 47X, 38HSUMMARY OF REPLACEMENT RECORDS ON DHAFF, //
1 114X, 3HOLD, 6X, 3HNEW /, 112X, 6HREC NO , 3X, 6HREC NO )
      END
UPDP1160
UPDP1170
UPDP1180
UPDP1190
UPDP1200
UPDP1210
UPDP1220
UPDP1230
****1240
****1250
UPDP1260
****1270
UPDP1280
UPDP1290
UPDP1300
UPDP1310
UPDP1320
UPDP1330
UPDP1340
UPDP1350
UPDP1360
UPDP1370
UPDP1380
UPDP1390
UPDP1400
****1410
****1420
****1430
UPDP1440
UPDP1450
UPDP1460
UPDP1470
UPDP1480
UPDP1490
UPDP1500
UPDP1510
UPDP1520
UPDP1530
UPDP1540
UPDP1550
UPDP1560
UPDP1570
UPDP1580
UPDP1590
UPDP1600
UPDP1610
UPDP1620
UPDP1630
UPDP1640
UPDP1650
UPDP1660
UPDP1670
UPDP1680
UPDP1690
UPDP1700
UPDP1710
UPDP1720
UPDP1730
UPDP1740
UPDP1750

```


2.3.6 GLOSSARY

LOCAL VARIABLES

Main Program

DFIELD(19)	An array of data for one DMAF record; see Section 2.3.3.2.
FSTCHR(19)	An array of the first character of each field of the update record; see Section 2.3.3.1.
I	An index for I/O statements.
IBLANK	A one-character blank space.
IDEL	Variable which contains the characters "DELT".
IDENT	Variable used to test for type of update instruction.
INS	Variable which contains the characters "NSRT".
IREC	Record number of the revised DMAF file.
IRECOR	Record number on DMAF prior to revision.
IREC1	First record number read from an update instruction card; indicates record at which update begins.
IREC2	Second record number read from an update instruction card; indicates last record of the sequence to be altered.
IREP	Variable which contains the characters "REPL".
ISIGN	Variable which contains the character "\$" which designates replacing the field with blanks.
ISTOP	Variable which contains the characters "99999".
J	Flag set to determine the type of update instruction: Flag set to "1" if inserting new records. Flag set to "2" if deleting records. Flag set to "3" if replacing values or entire records.
K	Index for deleting records.
L	Index used for DO-loop.
N	Index for I/O statements.
NREC	Number of sequential records to be updated.
UFIELD	An array of update data; see Section 2.3.3.1.

2.3.7 SAMPLE RUN

Card inputs (unit 5) for the sample run requested that the sequence number of all availabilities on the Depot Maintenance Assignment File (DMAF) for the CGN 35 be changed from 0 to 20. This was accomplished by using the replace command, *REPL, and the corresponding record numbers. For records 11 thru 13, the correct value of the sequence number was punched in the appropriate fields. The other alteration to DMAF was to change the values for percent alterations for all availabilities on the CV 41. Inputs requested substituting the value "21" on records 30 thru 32.

A summary of replacement records (unit 6) shows records that were deleted, noted by the letter "D," and replacement or inserted records, noted by the letter "I". When records were simply inserted, the file was resequenced by ones; therefore the old and new record numbers differed.

The output of program UPDEP consists of a Revised Depot Maintenance Assignment File (DMAF) and is written on unit 9.

Unit 5 - Card Inputs

*REPL	11	13
		20
*REPL	30	32
99999		

21

BEST AVAILABLE COPY

[illegible]

BEST AVAILABLE COPY

Unit 9 - Revised Depot Maintenance Assignment File

PUGETCGN	9	30	C	40179	40182AANNW792	82471	739000	0	9	1
PUGETCGN	9	30	C	40179	40182AANNW801	163508	739000	0	9	2
PUGETCGN	9	30	C	40179	40182AANNW802	164152	739000	0	9	3
PUGETCGN	9	30	C	40179	40182AANNW811	163582	739000	0	9	4
PUGETCGN	9	30	C	40179	40182AANNW812	123009	739000	14	9	5
PUGETCGN	9	30	C	40179	40182AANNW821	42207	739000	0	9	6
PUGETCGN	9	30	C	40179	40182AANNW822	68	739000	0	9	7
PUGETCGN	25	24	RA	11579	31579AANNW791	30000	30000	20	1	8
PUGETCGN	25	30	RO	60182	80183AANNW822	75760	298507	1419		9
PUGETCGN	35	11	RA	11579	31579AANNW791	12000	12000	100	1	10
PUGETCGN	35	0	RO	60181	80182AANNW812	75760	298507	1419		11
PUGETCGN	35	0	RO	60181	80182AANNW821	165233	298507	1419		12
PUGETCGN	35	0	RO	60181	80182AANNW822	57513	298507	1419		13
PUGETCGN	36	4	RA	11579	41679AANNW791	48925	47204	24	1	14
PUGETCGN	36	4	RA	11579	41679AANNW792	3278	47204	24	1	15
PUGETCGN	36	10	RO	41480	61481AANNW802	116368	278550	14	9	16
PUGETCGN	36	10	RO	41480	61481AANNW811	144621	278550	14	9	17
PUGETCGN	36	10	RO	41480	61481AANNW812	17560	278550	14	9	18
NORVACGN	37	4	RA	62178	82278AANNE782	20400	20400	39		19
NORVACGN	37	10	RO	10281	30582AANNE811	68369	278000	1413		20
NORVACGN	37	10	RO	10281	30582AANNE812	161821	278000	1413		21
NORVACGN	37	10	RO	10281	30582AANNE821	47808	278000	1413		22
NORVACGN	38	4	RA	80379100279AANNE792	11955	12000		32	1	23
NORVACGN	38	4	RA	80379100279AANNE801	44	12000		32	1	24
NORVACGN	38	10	RO	70182	90283AANNE822	69808	278000	913		25
PUGETCGN	39	4	RA	71579	91579AANNW792	12000	12000	100	1	26
CHASNCGN	40	4	RA	50182	70182AANNE822	12000	12000	100	1	27
NWPACCV	41	35	RA	71078	91178CVAPW782	40000	48000	4917		28
PUGETCV	41	36	RA	111078	11179CVANNW791	40000	40000	4817		29
LBECHCV	41	40	RO	101280101281CVANNW811	179097	396045		0	1	30
LBECHCV	41	40	RO	101280101281CVANNW812	215472	396045		0	1	31
LBECHCV	41	40	RO	101280101281CVANNW821	1474	396045		0	1	32
LBECHCV	43	40	RO	113077112978CVANNW781	124004	342067		1724		33
LBECHCV	43	40	RO	113077112978CVANNW782	199985	342067		1724		34
LBECHCV	43	40	RO	113077112978CVANNW791	18076	342067		1724		35
D 12 CV	43	41	RA	31080	71180CVAPW801	2096	10000	017		36
D 12 CV	43	41	RA	31080	71180CVAPW802	7903	10000	017		37
D 06 CV	59	41	RA	110378	12979CVAPE791	73258	73258	3917		38
NORVACV	59	42	RA	50380	72980CVANE802	60000	60000	4317		39
NORVACV	59	43	RA	100181	10182CVANE821	60000	60000	4417		40
D 06 CV	60	53	RA	10678	40378CVAPE781	86977	89360	4017		41
D 06 CV	60	53	RA	10678	40378CVAPE782	2382	89360	4017		42
NORVACV	60	60	RO	42079120179CVANE792	194944	240000		4723		43
NORVACV	60	60	RO	42079120179CVANE801	45055	240000		4723		44
D 06 CV	60	61	RA	70182100182CVAPE822	59484	60000		4217		45
PUGETCV	61	50	RO	21577	21578CVANNW781	111606	443300	3824		46
D 11 CV	61	51	RA	20180	50180CVAPW801	44312	60000	42	1	47
D 11 CV	61	51	RA	20180	50180CVAPW802	15687	60000	42	1	48
D 11 CV	61	52	RA	90181120181CVAPW812	14731	60000		46	1	49
D 11 CV	61	52	RA	90181120181CVAPW821	45268	60000		46	1	50
NORVACV	62	40	RO	112177101978CVANE781	140469	346352		4123		51
NORVACV	62	40	RO	112177101978CVANE782	199596	346352		4123		52
NORVACV	62	40	RO	112177101978CVANE791	6286	346352		4123		53
NORVACV	62	41	RA	90179112679CVANE792	29389	69170		4217		54
NORVACV	62	41	RA	90179112679CVANE801	39780	69170		4217		55
D 11 CV	62	42	RA	10281	40181CVAPW811	59925	60000	41	1	56
D 11 CV	62	42	RA	10281	40181CVAPW812	74	60000	41	1	57
D 11 CV	62	43	RA	50182	80182CVAPW822	60000	60000	41	1	58